

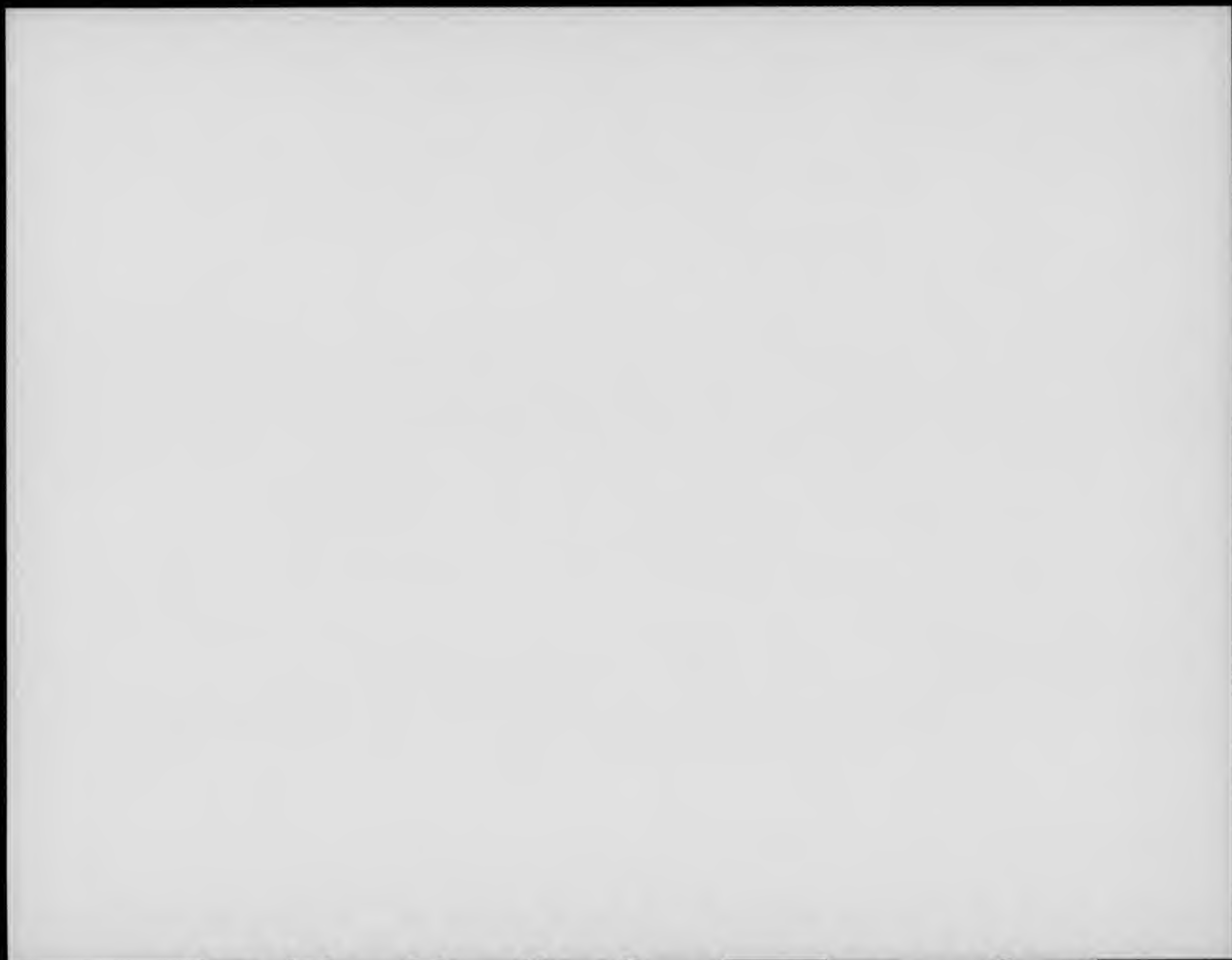
The Pennsylvania State

University Libraries

Microfilm Collection

Microfilm

START



MICROFILMED 1998

**Penn State University
Libraries**

University Park, PA 16802-1805

**USAIN STATE AND
LOCAL LITERATURE
PRESERVATION PROJECT:
PENNSYLVANIA**

Pattee Library

Funded by the

**NATIONAL ENDOWMENT
FOR THE HUMANITIES**

**Reproductions may not be made
without permission from**

The Pennsylvania State University Libraries

**Pennsylvania
Agricultural
Literature on
Microfilm**

COPYRIGHT STATEMENT

The copyright law of the United States - Title 17, United States Code - concerns the making of photocopies or other reproductions of copyrighted material.

Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or other reproduction. One of these specified conditions is that the photocopy or other reproduction is not to be "used for any purpose other than private study, scholarship, or research." If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of "fair use," that user may be liable for copyright infringement.

This institution reserves the right to refuse to accept a copy order if, in its judgement, fulfillment of the order would involve violation of the copyright law.

Master Negative Storage Number

PSt SNP aAg225

CONTENTS OF REEL 225

- 1) Inter-state milk producers' review, vol. 10
MNS# PSt SNPAG225.1**
- 2) Inter-state milk producers' review, vol. 11
MNS# PSt SNPAG225.2**
- 3) Inter-state milk producers' review, vol. 12
MNS# PSt SNPAG225.3**
- 4) Inter-state milk producers' review, vol. 13
MNS# PSt SNPAG225.4**

CONTENTS OF REEL 225 (CONTINUED)

- 5) Inter-state milk producers' review, vol. 14
MNS# PSt SNPAG225.5**
- 6) Inter-state milk producers' review, vol. 15
MNS# PSt SNPAG225.6**
- 7) Inter-state milk producers' review, vol. 16
MNS# PSt SNPAG225.7**
- 8) Inter-state milk producers' review, vol. 17
MNS# PSt SNPAG225.8**

Title: Inter-state milk producers' review, vol. 10

Place of Publication: Philadelphia, Pa.

Copyright Date: 1929/1930

Master Negative Storage Number: MNS# PSt SNPaAg225.1

<2125091> * *OCLC* Form:serial 2 Input:HHS Edit:FMD
 008 ENT: 980915 TYP: d DT1: 1920 DT2: 1971 FRE: m LAN: eng
 035 (OCoLC)3493155
 037 PSt SNPaAg0224.1-0227.3 \$bPreservation Office, The Pennsylvania State
 University, Pattee Library, University Park, PA 16801-1805
 090 20 Microfilm D344 reel 224.1-227.3 \$cmc+(service copy, print master,
 archival master) \$s+U1X1920-U12V2X1931+U12V4X1931+U12V6X1931- U25X1945
 245 00 Inter-state milk producers review
 246 30 Interstate milk producers' review
 246 30 Milk producers review
 260 Philadelphia, Pa. \$bInter-State Milk Producers Association \$c1920-1971
 300 v. \$bill. \$c31-36 cm.
 362 0 Vol. 1, no. 1 (May 1920)-
 362 1 Ceased with vol. 51 in 1971
 500 "Official organ of the Inter-State Milk Producers Association, Inc."
 500 Imprint varies
 500 Includes occasional special issues.
 500 Some mutilated pages
 515 Occasional irregularities in numbering
 533 Microfilm \$mv.1 (1920)-v.12,no.2 (1931), v.12,no.4 (1931),v.12,no.6
 (1931)-v.25 (1945) \$bUniversity Park, Pa. \$cPennsylvania State
 University \$d1998 \$e4 microfilm reels ; 35 mm. \$f(USAIN state and local
 literature preservation project. Pennsylvania) \$f(Pennsylvania
 agricultural literature on microfilm).
 650 0 Milk \$xPeriodicals
 650 0 Milk trade \$xPeriodicals
 785 02 \$tPennmarva
 830 0 USAIN state and local literature preservation project \$pPennsylvania
 830 0 Pennsylvania agricultural literature on microfilm

**FILMED WHOLE OR IN
PART FROM A COPY
BORROWED FROM:**

CORNELL UNIVERSITY

Microfilmed By:

Challenge Industries
402 E.State St
P.O. Box 599
Ithaca NY 14851-0599

phone (607)272-8990

fax (607)277-7865

www.lightlink.com/challind/micro1.htm

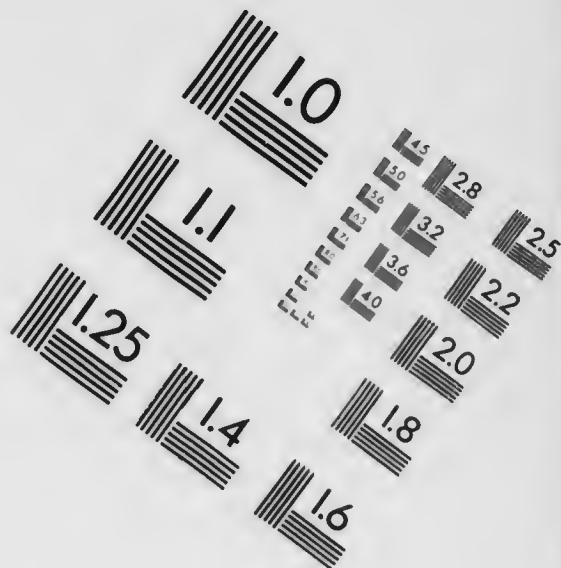
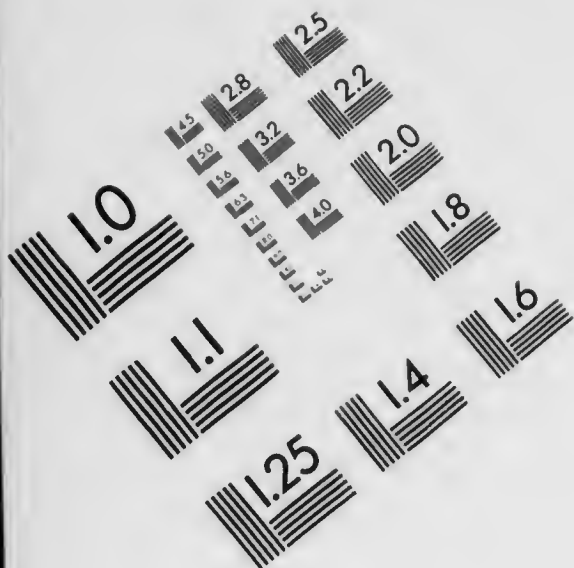
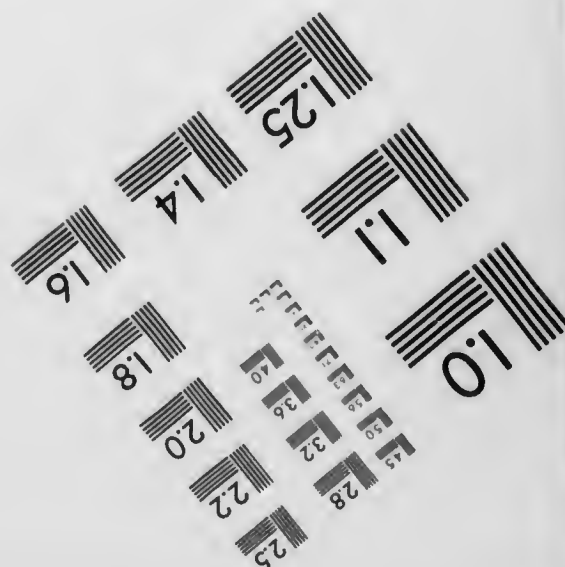
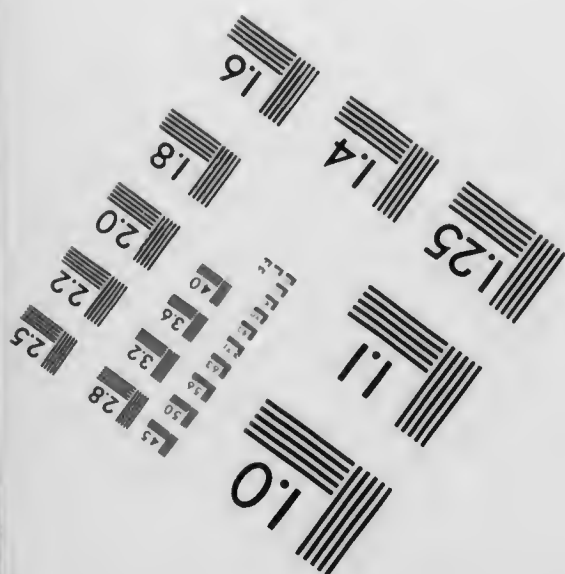
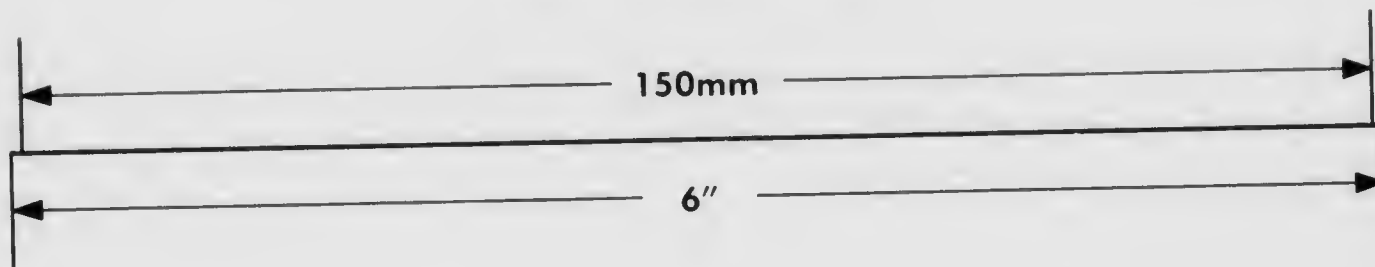
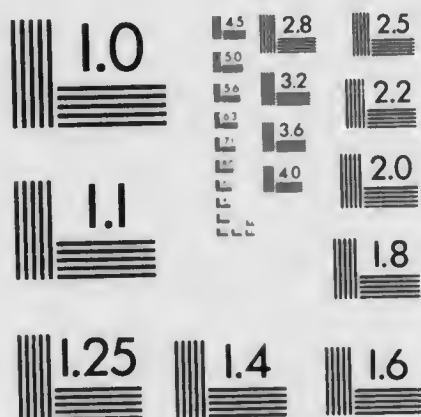


IMAGE EVALUATION TEST TARGET QA-3



APPLIED IMAGE, Inc
1653 East Main Street
Rochester, NY 14609 USA
Phone: 716/482-0300
Fax: 716/288-5989

**FILMED
AS
BOUND**

DUE TO TIGHT
BINDING SOME TEXT
IN THE GUTTER
MARGIN MAY BE
ILLEGIBLE

Volume 10
1929/1930

Milk Producers Review

ISSUED MONTHLY IN THE INTEREST OF THE DAIRY FARMER BY THE INTER-STATE MILK PRODUCERS ASSOCIATION, Inc.

Vol. X

West Chester, Pa., and Philadelphia, Pa., May, 1929

No. 1

How to Adjust Milk Production to the Philadelphia Marketing Plan*

F. F. LININGER and F. P. WEAVER

Department of Agricultural Economics, Pennsylvania State College

For the year 1921, shortly after the so-called "basic-surplus" or Philadelphia marketing plan went into operation, farmers sold during May, 68 per cent more milk than January. Four years later, in 1925, May sales were only 24 per cent greater than January sales. Summer sales for these years continued at about the same level, but the change was affected by increased production during the fall and winter months. Within the Philadelphia territory, during 1922-26, farmers selling under the basic-surplus plan produced 10 per cent more milk per cow in October, November and December, and 5 per cent less in April, May and June, than farmers in this same territory who did not sell under the basic-surplus plan. On the other hand, for the New York milk market, in which a basic-surplus plan was not used, for each can of additional milk obtained in November, 1926, over that for November, 1922, two and one-half cans were added to the June surplus. Apparently the "evening up" of milk production from month to month in the Philadelphia milk shed was due primarily to the basic-surplus plan of selling.

From 1921 to 1925, the price of milk to basic-surplus producers in the Philadelphia territory increased 14 per cent. Higher prices to Philadelphia producers were possible, because in 1925, probably a larger part of the total supply was sold by distributors for fluid use than in 1921, as well as because a greater proportion of the production was during the fall and winter when milk in surplus uses brings higher returns.

The Basic-Surplus Plan

One of the serious problems for distributors of milk is the handling of the surplus above fluid sales. The total production of a milk shed during the early pasture season, unless artificially regulated, is generally much greater than production during the fall and winter when cows are largely barn-fed.

Realizing these facts, the Inter-State Milk Producers' Association, bargaining for the sale of milk to cooperating distributors, adopted the "basic-surplus" plan of selling in 1919. The object of the plan was to give farmers an additional incentive to curtail summer production and to increase production during the fall and winter, by paying them a higher price throughout the year for the "basic" amount of milk, than for the surplus above this amount.

Prior to this plan, the distributors were compelled frequently to go outside of the milk shed, in the fall of the year, to secure sufficient milk to supply the fluid demand. While during the spring and early summer, there was a large surplus above that required for fluid sales. This surplus had to be devoted to uses in which it netted the distributors a lower return and this low return generally fixed the price to producers for all milk during the spring and summer. Since the distributors were compelled to maintain channels for the receipt of milk over a large enough area to supply their needs in the fall, the low

production in the fall months was responsible for a steady enlargement of the Philadelphia milk shed beyond the size that was needed throughout the rest of the year. This added to the surplus problem each succeeding spring and summer. The distributors were willing to pay a higher price for milk which was needed for fluid demand in the summer, if by this plan they could be assured of an adequate supply in the fall. The incentive for the necessary increase in fall production could be provided by paying the producer a price based on returns for milk in fluid uses for only that amount which he produced in the fall, and the incentive for

large purchases from other producers, may be able to sell as fluid milk only 75 per cent of his purchases. In such a situation, the dealer has a surplus of 25 per cent, while this particular farmer has no surplus. The converse of this situation may occur. For instance, during August, the producer might be shipping 3750 pounds of milk, and hence, there would be a farmer's surplus of 750 pounds. However, the dealer might be purchasing only small amounts from other farmers whose production at that time was falling below their basic amounts, so that he would be able to sell all his purchases as fluid milk. In this case, the dealer would have no

September for 115 per cent of their basic amount. It is also agreed that, under certain conditions, if the farmers' total basic amount greatly exceeds the total fluid sales, the basic price may be paid for a less quantity of milk than the basic amount. Up to the present time, farmers have never been compelled to accept a basic quantity less than 100 per cent of their established basic amount.

From the standpoint of producers who are attempting to adjust milk production most profitably to the basic-surplus plan of payment, certain questions arise:

1. How does the type of farming affect changes farmers should make in seasonal production?
2. How does distance from market affect changes farmers should make in seasonal production?
3. What methods may profitably be used by farmers to "even up" seasonal production?

The Effect of Type of Farming on Seasonal Milk Production

Records of milk sales indicate that, while the total monthly sales of milk by all farmers in the territory were "evened up," there were many individual farmers who maintained less even production in 1925, than in 1921. There were some who did not even maintain their basic production during any of the months succeeding the basic months, and there were many fell below basic production during January, February and March.

Adjustment to the basic-surplus plan, meaning a more uniform production from month to month, is most adaptable to those dairy farms which have relatively small amounts of pasture. On the other hand, farmers who have large amounts of pasture, relative to tillable crop land, cannot as a rule, profitably utilize all this pasture and produce an even flow of milk throughout the year. For these farmers, it is better to sell part of their milk at surplus prices, than to get no returns from a portion of their pasture land, and among all dairy farmers there are few who should attempt to have no surplus milk at any time during the year.

Weather is an important factor causing variations in the monthly production of milk. For instance, the unfavorable weather for milk production, during the summer of 1925, was a decided handicap to basic-surplus producers. In the fall of 1924, many producers had established a high basic production presumably with the intention of maintaining a high production during the following nine months. However, due primarily to the poor pasture season in 1925, subsequent production during the following summer was actually less than basic production, Table I. (See page 2.)

In June, 1925, production was slightly less than the basic amount, and in July, 15 per cent less. The low production was due to unusual weather. It was the coldest May in 38 years. There were heavy snowfalls in the northern part of the state on May 24th and 25th. In June, the opposite

(Continued on page 2)



TRUE TYPE HOLSTEIN-FRIESIAN COW

See page 3 for program of the Annual Meeting of the Holstein-Friesian Association, to be held in Philadelphia, June 4th and 5th, 1929

a lessened spring production might come from being compelled to accept the price based on manufactured products for the surplus above this amount.

Accordingly, a monthly "basic" amount of milk was determined for each producer, based on his production during October, November and December. If, during the following nine months, he sold more than his "basic" amount, the excess was known as the farmers' "surplus." For the surplus, each producer received a lower price than for his "basic" amount.

Since 1925, some changes in determining the basic amount have been made, but the production during October, November and December is still used as a basis for working out each farmer's "basic." During 1929, each farmer's basic amount represents a three-year average production during the three basic months.

The farmer's surplus above his basic amount, must not be confused with the dealer's surplus above fluid sales. For example, assume that during October, November and December a farmer established a basic amount of 3000 pounds, and that during the following June, he shipped only 3000 pounds. This farmer would have no surplus during June, although the dealer who bought this milk, because of

surplus, and the farmer would have a surplus of 25 per cent. It is evident, therefore, that farmers' surplus and dealers' surplus are not necessarily the same. In determining the basic price of milk, the cooperating dealers are likely those who are primarily fluid milk dealers, rather than dealers in ice cream and other manufactured products.

In the Philadelphia plan, it must be clear that at times the basic price must be lower than returns for milk in fluid uses would indicate, because the basic price paid must permit distributors to handle the surplus above fluid sales at the actual value of the milk in these surplus uses. That is, if the farmers' total basic were greater than the dealers' fluid sales, it would mean that farmers would be getting the basic price for milk which should have to go into surplus uses, and the basic price would accordingly have to be lower.

However, there is an agreement between the Inter-State Milk Producers' Association and the cooperating buyers that when there is likely to be a shortage of milk for fluid use, the basic price may be paid for a greater quantity of milk than the basic amount. For instance, during July and August, farmers receive the basic price for 110 per cent, and during

How to Adjust Your Production to the Philadelphia Selling Plan

F. F. LININGER and F. P. WEAVER

(Continued from page 1)

extreme was encountered when all previous records for heat were broken. August and September rainfall was deficient, a drought prevailing over the inter-State territory.

On account of weather uncertainties, producers may not profit at all in return for greatly increased costs involved in establishing a high basic amount. On the other hand, if a very favorable pasture season is at hand, it is generally profitable to sell the grass in the form of milk, even though a large part of it goes at surplus prices. This is the practice followed by many of the leading dairymen in the Philadelphia territory who sell under the basic-surplus plan. For instance, farmers on general farms with pasture sold, in terms of their monthly "basic," only 0.4 of one per cent less surplus in 1924, than in 1922, while those with little pasture sold 39 per cent less.

It is significant that, while there is no uniformity in adjustments made in different areas of the Philadelphia milk shed, most farmers located on farms of similar type, regardless of area, follow the same general practice.

The Effect of Distance from Market on Returns

for Basic and Surplus Milk

The freight on milk is considered in determining the basic price to be paid in each freight zone, while the same surplus price prevails in all zones. Therefore, the difference between basic and surplus prices is less for farmers far from market, than is the difference for those near Philadelphia. In other words, the surplus price is a higher percentage of the basic price for distant producers than for nearby producers.

In June, 1926, the price for three per cent basic milk in the 41 to 50-mile zone was \$2.14, and in the 291 to 300-mile zone, \$1.88. The price paid for first surplus was \$1.52, and for second surplus, \$1.19. First surplus prices are paid each farmer for a quantity of milk equivalent to his basic quantity, and second surplus prices are paid for all additional milk. These surplus prices applied to all zones. Therefore, the man in the 41 to 50-mile zone received for basic milk 62 cents above first surplus price, and 95 cents above second surplus price; while the man in the 291 to 300-mile zone received for basic milk only 36 and 69 cents respectively above first and second surplus prices. The amount of money that would be paid in the three zones for 10,000 pounds of milk, with varying basic amounts, is shown in table 2.

In June, 1926, a producer in the 41 to 50-mile zone, who was producing no surplus and selling 10,000 pounds of milk, would have received \$214. If he had produced 4,000 pounds of "basic" and 6,000 pounds of surplus, he would have received only \$170.20, or a difference of \$43.80, or 20.5 per cent reduction. With similar changes in the basic amounts, however, the difference would have been only \$28.20, or only 15.0 per cent reduction for the producer in the 291 to 300-mile zone. In order to have a deduction of but 15 per cent, the producer in the 41 to 50-mile zone, would have had to have a basic of approximately 5,000 pounds, instead of 4,000 pounds.

It is evident, therefore, that producers near Philadelphia can afford to spend somewhat more to raise the basic amount than producers far distant from market, the latter having less incentive to produce evenly.

Methods of Changing Seasonal Production

There are three common methods used to "even up" seasonal sales of milk: (1) buying cows in the fall and selling cows

in the spring, (2) increased grain feeding in the fall and decreased feeding of grain on pasture, and (3) having cows freshen in the fall. In addition to these methods about 20 percent of the farmers replying to a questionnaire stated that they decrease surplus sales by feeding milk to farm animals. The amounts fed, however, are likely small.

Buying and Selling Cows. On the buying and selling of cows in order to "even up" production, the average loss of 85 producers was reported to be \$41.60 per

TABLE I—Effect of Weather on Daily Milk Production on 38 Farms—1925

PRODUCING PERIOD	WEATHER RECORDS DEPARTURE FROM NORMAL		DAILY MILK PRODUCTION PER FARM	
	Temperature in Degrees	Precipitation in Inches	Pounds	Per Cent of Basic
BASIC PRODUCTION (Av. Oct., Nov., Dec., 1924)			214.5	100
1925				
January	-2.7	+0.39	234.2	109
February	+8.1	-0.71	242.5	113
March	+3.5	-0.85	214.2	100
April	+2.5	-1.02	220.6	103
May	-4.9	-0.30	215.8	101
June	+4.1	-1.19	213.3	99
July	+1.8	+1.55	181.9	85
August	-0.7	-2.24	189.0	88
September	+3.9	-0.59	191.6	89

14-cow herd, or approximately \$3.00 for each cow in the herd. Of course, if farmers always bought fresh cows and sold other cows in the later stages of lactation, the added cost would tend to be offset by this practice. Taking into account the difference between basic and surplus prices in the 50 to 60-mile zone, farmers would be required to raise their basic amount more than 13 per cent in order to cover the loss of \$3.00 per cow. Since surplus sales were for some months more than 13 per cent above the basic amount, even this increase would not eliminate all surplus during all months. It is evident that the practice of buying and selling cows is an expensive way of effecting uniform production from month to month, and it is

TABLE II—Effect of Varying Amounts of "Basic" Upon Amount of Money Received from Sale of 10,000 Pounds of Milk in Different Milk Zones, June, 1926

CLASS OF MILK		AMOUNT RECEIVED FOR MILK		Per cent of amount that would have been received, if all the milk had been basic	Per cent of amount that would have been received, if all the milk had been basic
		41-50 Miles from Philadelphia	291-300 Miles from Philadelphia		
BASIC	First Surplus	Second Surplus	Dollars	Dollars	Dollars
10,000	0	0	\$214.00	100	100
6,667	3,333	0	193.34	90.3	93.6
5,000	5,000	0	183.00	85.5	90.4
4,000	4,000	2,000	170.20	79.5	85.0

doubtful in most instances, if gains in milk returns offset losses incurred in the purchase and sale of cows.

Increasing Grain Fed in Fall. Apparently, about three-fourths of the farmers selling under the basic-surplus plan, increase the amount of grain fed in the fall, in order to increase the basic amount of milk produced.

During the basic period, farmers selling on the basic-surplus plan, feed on the average 10 per cent more grain than their neighbors who do not sell on this plan.

The basic-surplus producers also feed 7 per cent less grain on pasture than those who do not sell under the basic-surplus plan. This is not a desirable feeding practice for basic-surplus producers to follow, since it tends to decrease the production per cow, and increases the cost of producing milk. A somewhat larger amount of grain on pasture, especially to fall freshened cows, would tend to lower the average cost of producing milk throughout the year.

Having Cows Freshen in the Fall. Increasing fall and winter production by having cows freshen in the fall is the most common method of increasing basic production; four out of five farmers reporting they follow this method.

The opinion commonly held is that fall-freshened cows produce more milk than spring-freshened cows, and that they will produce it at a lower unit cost. A study of the milk production of over 9,000 cows in cow-testing associations, in all parts of Pennsylvania, showed that fall cows did produce 7 per cent more milk than spring cows, but that they received 13 per cent more grain and 7 per cent more silage. The idea that increased milk production results from the mere incident of fall freshening overlooks the important fact

units of milk on which to make a profit, fall-freshened cows are more profitable than spring-freshened cows.

The basic-surplus plan of paying for milk causes farmers to increase the proportion of fall-freshened cows in their herds, and in this way may help to increase the efficiency of milk production, if fall-freshened is accompanied by proper feeding practices.

Producers often make the mistake in not grain feeding their fall cows properly while on pasture, because they desire to keep surplus milk sales at a minimum. This practice is a mistaken one because in this way they offset wholly, or in part, the advantages gained by fall freshening.

There is nothing inherent in the basic-surplus plan, which would make it desirable to follow unsound feeding practices, other than the natural dislike on the part of producers to sell one equally good quart of milk at a lower price than another. A recognition of the fact that the greatest profit may come from a moderate amount of surplus in the spring would offset this tendency.

It appears, therefore, that sound feeding practices, including a liberal but not excessive grain feeding in the fall, and also, a moderate grain feeding of fall-freshened cows during the pasture season, together with an effort to have a large portion of the herd freshen in the fall, are the most economical and efficient ways of adjusting the seasonal production of milk to the basic-surplus plan of payment in the Philadelphia milk shed.

From the market point of view, with producers maintaining a high proportion of fall-freshened cows in the herds, and making no unusual efforts to set an unusually high basic amount, either by purchasing cows, or by excessive fall feeding, there would be no serious dealers surplus in any season of the year, and consequently production would be well adjusted to the demands of the market.

Changes Made in Breed of Cows in Last Five Years, and Changes Contemplated in the Near Future

In order to meet the demand for milk with a higher fat test, the opinion has been held that farmers have been changing breeds. In order to get some measure of this change, if such existed, data were collected in 1926, on the breeds of dairy cattle then found on farms and the breeds that were there five years before. Farmers were also asked if they intended to change breeds in the near future. The Holstein and Ayrshire breeds were classed as low test breeds and Guernsey and Jersey as high test breeds. While there are individuals of all breeds that do not properly belong in the classes designated, the average fat tests for the breeds seem to warrant this classification. A herd with a majority of animals of the same breed (not necessarily purebred) was given the classification of that breed.

Out of 554 farms, there were 92 farms that changed to high test breeds and only 27 that changed to low test. Twelve per cent of the farms had high test herds five years ago and did not change, and 17 per cent changed to high test so that in 1926, 29 per cent had high test herds. Twenty-nine per cent had low test herds in 1921 and did not change, and 5 per cent changed to low, so that in 1926, 34 per cent had low test herds. It may be said, in general, that slightly less than one-third of the farms studied had high test herds in 1926; about one-third had low test herds, and somewhat more than one-third had

(Continued on page 6)

Mifflin County Farmers Talk Milk Marketing

Nearly three hundred dairy farmers in Mifflin County, Pennsylvania, attended a meeting on April 30th, in the Court House in Lewistown, Pa., to consider ways and means of marketing the milk produced in that district, to better advantage.

Producers in this section have been marketing their milk to local buyers and in most cases have not been receiving the regular inter-State price for their product.

The meeting was held to discuss some program by which full association prices and some possible means of shipping the milk not needed for fluid consumption within the territory, to the Philadelphia Market.

H. D. Allebach, president of the Inter-State Milk Producers' Association outlined a plan under which the members of the association might improve their situation.

"Much of the milk in this section," he said, "has been going to manufacturing plants, which has meant a lower range of prices."

"It was proposed that the Supplee-Wills-Jones Milk Company of Philadelphia erect a liquid milk receiving station in that immediate vicinity, and that the milk going to that plant be accepted and paid for on the basis of the Inter-State Milk Producers' Association price."

"In building such a plant it was agreed that a receiving station to cost \$30,000.00 be erected. That the Supplee-Wills-Jones Company contribute one half of this cost and that the remaining half be contributed by the dairymen. This contribution bearing interest at the legal rate was to be handled through a local bank and was to be returned to the various contributors by the Supplee-Wills-Jones Company when the daily deliveries of milk, over a period of two months reached 200 cans per day. It was believed that the plant would easily reach the 200 can mark in about 1 1/2 years."

After a very complete discussion of the proposed plan it was agreed by the producers attending the meeting, that the program was a feasible one and the full amount of the milk producers' subscription was subscribed.

The meeting was in charge of H. H. Bradford, president of the Mifflin County Local of the Inter-State Milk Producers' Association.

S. B. Russell, president of the Russell National Bank, Lewistown, Pa., will act as the farmers' fiscal agent and transact the financial details with the Supplee-Wills-Jones Milk Company.

County Agents Launch Campaign for More Silos

County Agents of Queen Anne's, Kent, Caroline, Talbot and Dorchester counties this week launched a campaign for the building of new silos which they are hopeful will result in material improvement in the serious shortage of home-grown dairy feeds throughout the five-county area.

The Five County Silo Campaign will continue on a systematic basis for five years beginning this summer. The goal will be ten new silos per county by 1934.

Various other agencies will be brought into play in this drive, it is said. The Inter-State Milk Producers' Association and the Dairy Council of Philadelphia will be asked to cooperate in any way possible. The assistance of the larger milk dealers handling the milk of this area will be solicited. Silo manufacturers will be approached in the same connection. Newspapers throughout the five counties will be asked to help with publicity and in other ways.—C. R.

State Legislation of Interest to Our Dairymen

The agricultural interests seem to have had no very startling pieces of legislation before the legislative bodies in Pennsylvania, N. J., Del., and Md., at the sessions held during the past few months. In all four states, bills were passed making adequate provision for T. B. eradication. In Delaware a law was enacted which requires milk buyers to give information relative to Babcock tests of milk of all patrons. This law is practically the same as has been on the statute books in Pennsylvania, for sometime. In New Jersey there was quite a bit of excitement relative to proposed legislation to control production and the sale of milk in New Jersey. Due to opposition which developed most of this proposed legislation was not enacted.

In Maryland funds were not sufficient to increase to any great extent the dairy extension activities of the University of Maryland, but the various agricultural interests of the University will be fully supported as heretofore.

In Pennsylvania, two bills were passed making amendments to and increasing the scope of the cooperative marketing law of 1919. These bills which had the unanimous support of agricultural interests have been signed by the Governor. They bring the Pennsylvania Co-operative Law thoroughly up-to-date and will enable cooperative associations in the State to extend activities and to revise somewhat their forms of character so as to keep them as fully as possible to help the needs of the membership.

A law was passed giving specific powers to the Secretary of Health of the Commonwealth of Pennsylvania, with respect to regulation of the sale and distribution of milk and its fluid derivatives. This bill has been signed by the Governor, and a decided step in advance in guaranteeing to the consumer a safe milk supply throughout the State and protecting milk of high quality. It is felt that this will strengthen the hand of the co-operative associations of the State and the dealers which work with them, and that it will require other buyers also to make every effort to buy milk only from farmers which are meeting minimum requirements.

A bill to strengthen the present oleomargarine law was passed by both branches of the Legislature, but vetoed by the Governor on the grounds of unconstitutionality.

Pennsylvania State College secured an appropriation far in excess of that granted by any previous legislature. The total appropriation is \$6,311,000. This designates \$2,250,000 for new buildings which are sorely needed to take care of increased needs of the college. This appropriation is in excess of what would have been available for the next two years had the Bond Issue gone through at the last election. The balance of the appropriation for general maintenance and extension is slightly more than that of two years ago.

Governor Fisher is reported to have signed the measure, appropriating funds for the erection of adequate buildings to house the Pennsylvania State Farm Products Show in Harrisburg, Pa.

According to the United States Department of Agriculture, no sure remedies are known for contagious abortion in cattle, hog cholera; influenza of hogs, horses, and other animals; tuberculosis of cattle and poultry; distemper of dogs, cats and foxes; heaves of horses; bacillary white diarrhea, fowl cholera, roup or diphtheria, and chicken pox of chickens, and black-head of turkeys. These diseases must be conquered by methods of prevention.

Holstein-Friesian Convention Tentative Program

The general Committee of the 44th annual convention of the Holstein-Friesian Association of America, and the Federation of Holstein-Friesian Clubs of Pennsylvania, New Jersey, Delaware and Maryland, has announced tentative plans of the meeting to be held at the Benjamin Franklin Hotel, Philadelphia, Pa., June 3rd to 7th, 1929.

The general tentative program will be as follows. (Daylight Saving Time used in referring to hours of meeting, etc.)

Monday, June 3rd.

Meeting of Directors, the Holstein-Friesian Association of America. Registration of visitors, delegates and others at the headquarters, the Benjamin Franklin Hotel, is urged on this day.

Committee Meetings: Finances, Extension Service, Prizes at Fairs, Qualifications of judges, etc.

Tuesday, June 4th.

8:00 A. M. Registration of visitors. 8:30 A. M. Annual Meeting of the Board of Directors.

9:00 A. M. Meeting of Delegates of the Holstein-Friesian Association of America and other Holstein Breeders. Meeting will be called to order promptly.

9:30 A. M. Informal general discussion of problems before the Association. Members, as well as delegates, have the privilege of the floor.

10:00 A. M. Topic: "Herd Improvement Plans," Prof. O. E. Reed, Dept. of Dairying, Bureau of Agriculture, Washington, D. C., and H. W. Horton, Jr., Superintendent of Advanced Registry.

11:30 A. M. Topic: "Our Extension Service," Leader, Earl J. Cooper, Director of Extension Service.

AFTERNOON SESSION

Trip to Winterthur Farms

H. F. DuPont, owner of Winterthur Farms, Winterthur, Delaware, has invited the delegates and their Holstein-friends, to be his guests for the afternoon and evening. He has planned a delightful steamboat trip down the Delaware River to Wilmington, Delaware, thence by buses to his Winterthur Farms, where the buildings and herd will be inspected. Supper will be served at Winterthur. The visitors will then be taken by buses to Mr. DuPont's Longwood Gardens, near Kennett Square, Pa., where the conservatories and gardens will be inspected and an illuminated fountain display will be made.

The visitors then return from Wilmington, Delaware, by steamboat to Philadelphia.

Register for this trip at headquarters desk of the Holstein-Friesian Association of America, in the Benjamin Franklin Hotel and obtain free tickets.

Wednesday, June 5th.

10:00 A. M. Annual Convention of Delegates. (Order of business will be found in official call for delegates' convention as issued by the secretary.) Meeting will be called to order by Hon. Frank O. Lowden, president of the Association. Address of welcome, Honorable Harry A. Mackey, Mayor of Philadelphia.

AFTERNOON SESSION

Convention continues.

Annual Banquet

6:30 P. M. The annual banquet of the Holstein-Friesian Association of America, will be held at the Benjamin Franklin Hotel. Tickets are available at time of registration. Price \$2.00 per person.

Entertainment and Dance

Through the courtesy of the National Dairy Council and under the direction of the Philadelphia Inter-State Dairy Council, a novel program will be presented.

There will be a demonstration of two of the attractive health plays through which the importance of dairy products is presented by the school children wherever Dairy Council work is organized.

Two colorful plays will be given by Public School children under permission by the Philadelphia Board of Education. "Silly Goos's Mistake," a play by children of the 5th and 6th grades, and "Beauty's Bloom," given by the Junior High School students.

"Happy" Goldsmith, of the Dairy Council will speak on the topic, "Barnyard Golf" while "The Milk Maids' Chorus" by members of the Dairy Council staff will present dairy songs and attractive dances.

The presentation of this program will be followed by dancing to which all those attending are invited to participate.

Ladies Entertainment

Tuesday, June 4th.

9.00 A. M. to 12.00 Noon

Short trips will be arranged for ladies to visit:

Independence Hall Wanamaker's Store
Carpenters Hall Gimbel's Store
Curtis Publishing Co.

Strawbridge & Clothier's Store
Reservations for these trips should be made on Monday evening or early Tuesday morning.

WINTERTHUR TRIP

Ladies will meet the steamboat at Chestnut Street Wharf at 2.00 P. M., for trip to Winterthur Farms and Longwood Gardens. (See general program.)

Wednesday, June 5th

9.30 A. M. Sightseeing Auto Bus trip. Buses will stop at interesting points in the city.

LUNCHEON

The visiting ladies will be served with luncheon by the Philadelphia Inter-State Dairy Council at the offices of the Inter-State Milk Producers' Association, Flint Building, Philadelphia, Pa.

A short entertainment program illustrating some of the educational work of the Dairy Council will be presented.

Register for these various events and obtain necessary free tickets at the headquarters desk of the Holstein-Friesian Association of America, in the Benjamin Franklin Hotel.

Thursday and Friday, June 6 and 7 10:00 A. M. Consignment sale of cattle held in the Commercial Museum, Philadelphia, in the Commercial Museum, Philadelphia, Pa.

Grow Calves By Use Of Skimmilk Powder

A shortage of 200,000 cows in the country shows the need of growing calves, but fluid milk at present high prices makes this type of feeding prohibitive, according to Professor A. A. Borland, head of the Dairy Husbandry Department at State College.

Experiment Station workers in dairy feeding at Penn State have found, however, that it is possible to grow calves on skimmilk powder and a grain mixture. After the calves become six weeks of age a mixture of 55 parts of yellow corn meal, 35 parts of skimmilk powder, and 10 parts of wheat bran is recommended for this purpose.

INTER-STATE MILK PRODUCERS REVIEW

Official Organ of the
Inter-State Milk Producers' Association, Inc.

August A. Miller, Editor and
Business Manager
Frederick Shangle, Advertising Manager

Published Monthly by the Inter-State Milk
Producers' Association, Inc.

Business Office
Flint Building, 219 N. Broad St., Phila., Pa.
24 E. Market St., West Chester, Pa.
Editorial and Advertising Office
Flint Building, 219 N. Broad St., Phila., Pa.
Bell Phone, Locust 5391 Locust 5392
Keystone Phone, Recs 5344

Printed by Horace F. Temple, Inc.
West Chester, Pa.

Subscription
50 cents a year in advance.
Advertising rates on application

"Entered as second-class matter, June 3, 1920,
at the post office at West Chester, Pennsylvania,
under the Act of March 3, 1879."



Why dilate on the subject. Its here
again and no matter how much we may
be opposed to it, we just have to grin and
bear it. The farmer is an accommodating
chap any how.

"Daylight Saving Time" again went
into effect on April 28th, 1929, and clocks
and time pieces were moved up one hour.

Now we will have to get used to the
complexities of disagreeing time pieces
all over again.

The man who started daylight saving,
never was a dairyman.

A chaotic condition confronts us at
Washington. Many ideas, many pro-
posed plans for the salvation of agricul-
ture have been presented.

Are we for this or are we for that form of
National agricultural aid? The demand
varies according to the particular type of
agriculture in which you may be engaged.

With a wide diversification of ideas
throughout the country, there can be
but little doubt but that congress has a
big job on its hands.

All agree agriculture needs adequate tariff
regulations. There is no doubt what ever,
as to the necessity of adequate tariffs on
all dairy products. There is no doubt
whatever that the dairy industry needs
likewise full protection from the invasion
of foreign fats and oils which enter into
the manufacture of the so-called oleomargarine
components, used as substitutes for dairy
products.

Now we have another type of legislation
—Farm Relief. Up to the present time this
demand lacks a unification of ideas. Each
group is sure its plan will work and others
fail to produce results. Can there be a
plan that would be uniformly satisfactory?
We doubt it.

A little spirit of cooperation, a modifi-
cation or an adoption of some of the best
features in all plans might be broadened
into a National law, if the powers that be
were willing.

One of the hardest problems in unified
agriculture today is the moulding of a
plan of farm relief that is designed to fit
every case and every phase of agriculture.

It cannot be done at one fell swoop—
but with proper education and a willing-
ness to actually cooperate vast forward
movements in the adjustment of produc-
tion to meet demand and by the de-
velopment of proper and sound marketing
programs, we believe that something can
be done to assist agriculture.

Whatever Congress does at this session
can be but a first step in the move to-
ward the solution of a great economic
problem. The farmers of the country we
believe will very largely have to work out

their own salvation through cooperative
endeavor. Congress can continue to aid
by clearing the way and giving us equality
of economic opportunity.

MAY MILK PRICES

Inter-State Milk Producers'
Association, Inc.

In accordance with an agree-
ment made with co-operating
buyers the price to be paid for
fluid milk delivered in May, and
until further advised, will revert
to that paid prior to the advance
made for March and April 1929,
when an increase of 11½ cents
per hundred pounds was made.

The price of 3½ milk for May
will be \$3.29 per hundred pounds
delivered f. o. b. Philadelphia
and \$2.71 per hundred pounds at
receiving stations in the 51 to 60
mile zone. This price will apply
on all grades of milk.

Milk shipped to co-operating
buyers will, as heretofore, be
paid for on the basis and surplus
plan.

APRIL BUTTER PRICES

Philadelphia	New York	Chicago
1 47½	46½	46½
2 47½	45½	46½
3 46½	45½	45½
4 46½	45½	44½
5 46½	45½	44½
6 46½	45½	44½
7 46½	45½	44½
8 46½	45½	44½
9 46½	45½	44½
10 45½	44½	43½
11 46½	45½	44½
12 46½	45½	44½
13 46½	45½	44½
14 46½	45½	44½
15 46½	45½	44½
16 46½	45½	44½
17 46½	45½	44½
18 46½	45½	44½
19 46½	45½	44½
20 46½	45½	44½
21 46½	45½	44½
22 46½	45½	44½
23 46½	45½	44½
24 46½	45½	44½
25 46½	45½	44½
26 46½	45½	44½
27 46½	45½	44½
28 46½	45½	44½
29 46½	45½	44½
30 46½	45½	44½

52% of Cattle in New Jersey Have Been Tested

Southern Section Leads

For the control and eradication of
bovine tuberculosis in New Jersey, Dr.
J. H. McNeil, Chief, Bureau of Animal
Industry, stated recently that 52 per cent
of the entire cattle population of the
State is now under State and Federal co-
operative supervision.

Practically all of the herds supplying
the larger milk distributing plants in the
southern section of the State are under
supervision although a considerable terri-
tory north and some on the central line
have no requirements as to tuberculin
testing of herds supplying milk stations.

There are 9188 herds with 80,418
cattle under supervision in New Jersey on
April 1st, 1929.

Statement of the ownership, management, cir-
culation, etc., required by the Act of August 24,
1912, of the Inter-State Milk Producers' Review,
published monthly at West Chester, Pa.
Editor, August A. Miller, Brookline, Delaware
County, Pa.; Business Manager, August A. Miller,
Brookline, Delaware County, Pa.; Advertising
Manager, Frederick Shangle, Trenton, New Jersey;
Publisher, Inter-State Milk Producers' Associa-
tion, Philadelphia, Penna.

OWNERS: (If a corporation, give its name and
the names and addresses of stockholders holding
1 per cent. or more of total amount of stock. If
not a corporation, give names and addresses of
individual owners.) Inter-State Milk Producers'
Association, H. D. Allebach, Trappe, Pa.; Fred
Shangle, Trenton, N. J.; R. D. E. Nelson, James,
Rising Sun, Md.; E. H. Donovan, Brenford,
Delaware; R. W. Balderston, Media, Pa.; R. F.
Brinton, West Chester, Pa., and 20,726 others.

Known bond holders, mortgages and other secu-
rity holders, holding 1 per cent. or more of total
amount of bonds, mortgages, or other securities:
(If there are none, so state.) None.

Average number of copies of each issue of this
publication sold or distributed, through the mails
or otherwise to paid subscribers during the six
months preceding the date shown above. (This
information is required from daily newspapers
only.)

AUGUST A. MILLER,
Sworn to and subscribed before me this 3d day
of May, 1927.

A. M. Blanc,
Notary Public.

My commission expires April 26th, 1929.

Market Conditions

H. D. ALLEBACH

The price of fluid milk, during May
1929, will return to that paid during
February, in other words the increase of
11½ cents per hundred pounds, effective
during March and April, will not be paid
by co-operating dealers for milk shipped
during May.

The increase in price did not appear to
increase production to any marked degree
during March and April. Some of the
dealers are carrying more milk than they
did during the last few months. Production
has increased considerably during the last
two weeks and some buyers are complain-
ing about having too much milk. This has
probably been caused by good early pasture,
aided materially by continued early show-
ers, on the other hand cool weather condi-
tions have had a tendency to decrease con-
sumption, both of milk and ice cream.

Several new receiving stations are to
be erected during the coming few months.
The Supple-Willis-Jones Company will
build a new station at Martinsburg.
A contract for this plant has been let.

These plants are not in what might be
called "new" territory. Milk from this
section is now being shipped to the Hagers-
town, Md., plant, which involves a heavy
hauling charge. These same buyers are
also arranging to build a new receiving
station at Lewistown, Pa. This plant is
not being erected in what might be
termed new territory. The supply has
been going to plants in that territory and
some consumed locally and some shipped to
Philadelphia, particularly when the
market was short. The milk when not in
demand outside the production area, went
to manufacturing plants who have not al-
ways been able to pay regular Inter-State
Milk Producers' Association prices. The
erection of the plant will, it is believed take
the surplus milk now being produced in that
section and producers will get the fluid milk
price for their product.

Abbotts Dairies, Inc., have recently
purchased the supply of milk which has
been going to the Concordville (Delaware
County) and Cochranville (Chester
County) plants of the Kraft Cheese
Company, who have discontinued the
manufacture of dairy products at their
Concordville plant. The Cochranville
plant will be operated as a receiving sta-
tion. The milk from the Concordville
plant is now being shipped to the Abbott
plant in Philadelphia, as direct shipped
milk.

April Milk Prices

The same range of prices for fluid milk
applied in both March and April, when an
advance of approximately 11½ cents per
hundred pounds over the quoted prices
for February, was paid by co-operating
buyers.

Fluid milk shipped to co-operating buy-
ers during April, under the Philadelphia
Selling Plan, will be paid for on the fol-
lowing basis.

Grade B Market Milk, three per cent
butterfat content (basic quantity average)
delivered f. o. b. Philadelphia, during
April is quoted at \$3.41 per hundred
pounds, or 7.35 cents per quart.

The price of Grade B Market Milk
(basic quantity average), three per cent
butterfat content, delivered at receiving
stations in the 51-60 mile zone, during
April, is quoted at \$2.83 per hundred
pounds.

The usual butterfat differentials and
prices for "A" milk in the different mile
zones in the territory and at "A" stations
are quoted on page 5 of this issue of
Milk Producers' Review.

Surplus Milk Prices

The price of Class I surplus milk for
April, three per cent butterfat content,
delivered f. o. b. Philadelphia is quoted at
\$2.33 per hundred pounds or 5 cents per
quart. The price of Class I surplus, at
all receiving stations, is \$1.75 per hundred
pounds.

The price of Class II Surplus milk,
3 per cent butterfat content, for April
o. b. Philadelphia is \$1.96 per hundred
pounds or 4.2 cents per quart. The price
of Class II milk at all receiving stations,
is \$1.39 per hundred pounds.

April Butter Market

While there has been no wide price
fluctuations during April, the general
tendency of the market was inclined
toward nervousness. Production on the
whole has shown some increase and there
appeared to be a disposition to move pro-
duction at the expense of holding prices.
Consumption has been fairly steady.
In some markets lower grades were, at
times, in greater demand than the higher
grades.

Toward the close of the month there
was a disposition toward greater firmness.
Demand showed some improvement, daily
receipts moved more freely and the market
on the whole appeared more steady.

The quantity of storage butter contin-
ues low. Total United States stocks as
reported by the Bureau of Agriculture
Economics on April 1, 1929 aggregated
5,535,000 pounds, as compared with
5,716,000 pounds on the same date last
year and a five year average of 6,974,000
pounds.

Quotations for 92 score butter, solid
pack, New York City, on which the
month at 46½ cents per pound. An immediate
decline followed which at the end of ten
days reached 44½ cents. During the re-
mainder of the month quotations advanced
slightly, the top being 45½ cents. The
month closed with quotations at 45½
cents.

The average price of 92 score butter,
solid pack, New York City, on which the
surplus price for April, was computed
was .4541 cents, as compared to .4882 one
month ago and .4586 the price quoted for
1928

National Dairy Exposition

The twenty-third Annual National
Dairy Exposition, will be held this year,
at St. Louis, Mo., October 12th, to 19th,
inclusive.

A new \$1,500,000 plant, which is to be
the permanent home of the National
Dairy Exposition, beginning with 1929, is
now in course of erection. The arena build-
ing will be 476 x 276 feet, will seat 12,000
persons. The show ring will be 100 x 260
feet. There will be 36,000 square feet of
exhibit space on the main floor, with
16,000 square feet in the balcony.

The West Building 300 x 288 feet will
be used for cattle exhibits. Half of the
East Building will also be used for the
same purpose. Total provisions have
been made to house twelve hundred head
of cattle.

Arrangements have been made for a
Poultry Show, of National scope and im-
portance, to be held in connection with the
National Dairy Show.

Tentative programs for both these shows
are now in course of preparation.

LATEST MARKET PRICES

The basic price, quoted below for April, 1929, is to be paid by co-operating dealers on the average
basic quantity established by each producer. For all milk bought in excess of the basic amount, the
surplus prices, quoted below for the month of April 1929, are to be paid.

Surplus milk will be paid for under two classifications. Class I, represented by the amount of milk
in excess of the basic average and equal to it in amount, which will be paid for by co-operating dealers
on the basis of 92 score butter, solid pack, New York City, plus 20 per cent and Class II surplus rep-
resented by milk shipped in excess of the first surplus amount, which will be paid for on a flat average 92
score butter price for the month.

The following quotations are based on 3 per cent butterfat content milk and a differential of 4 cents
for each tenth point and 2 cents for each half tenth point, up or down and are for all railroad points
(Inland stations carry differentials subject to local arrangements.)

PHILADELPHIA SELLING PLAN

INTER-STATE MILK PRODUCERS' ASSOCIATION PRICES

This price list is issued with the understanding that it is net to the producers and that all buyers
using it as a basis of payment to producers, shall in addition thereto make the following contributions
and payments:

(1) To the Philadelphia Inter-State Dairy Council 2c per 100 pounds (46½ quarts) of all milk
purchased from any producer at prices listed herein.

(2) To the Inter-State Milk Producers' Association 2c per 100 pounds (46½ quarts) of all milk
bought from members of said Association.

(3) To the Philadelphia Inter-State Dairy Council 2c per 100 pounds (46½ quarts) of all milk
bought from other producers at prices listed herein.

The funds so derived are to be used by the recipients for improving standards of quality in production
(192) distribution of milk in the Philadelphia Milk Shed, for improvements and stabilization of market
and for an educational campaign advertising the food value of dairy products.

BASIC PRICE

April, 1929

F. O. B. Philadelphia

Grade B Market Milk

Test	Per	Price
Per Cent.	100 Lbs.	Per Qt.
3.10	\$3.41	7.35
3.11	3.45	7.4
3.12	3.49	7.5
3.13	3.53	7.55
3.14	3.57	7.6
3.15	3.61	7.65
3.16	3.65	7.7
3.17	3.69	7.75
3.18	3.73	7.8
3.19	3.77	7.85
3.20	3.81	7.9
3.21	3.85	7.95
3.22	3.89	8
3.23	3.93	8.05
3.24	3.97	8.1
3.25	4.01	8.15
3.26	4.05	8.2
3.27	4.09	8.25
3.28	4.13	8.3
3.29	4.17	8.35
3.30	4.21	8.4
3.31	4.25	8.45
3.32	4.29	8.5
3.33	4.33	8.55
3.34	4.37	8.6
3.35	4.41	8.65
3.36	4.45	8.7
3.37	4.49	8.75
3.38	4.53	8.8
3.39	4.57	8.85
3.40	4.61	8.9
3.41	4.65	8.95
3.42	4.69	9
3.43	4.73	9.05

When milk is not tested the price f. o. b. Phila.
delphia is 8.35 cents per quart.

APRIL SURPLUS PRICES

F. O. B. Philadelphia

Class I

Class II

Test	Per	Price	Test	Per	Price
Per Cent.	100 Lbs.	Per Qt.	Per Cent.	100 Lbs.	Per Qt.
3.00	\$2.33	5	3.00	\$1.96	4.25
3.01	2.35	5.05	3.01	1.98	4.25
3.02	2.37	5.1	3.02	2.00	4.3
3.03	2.39	5.15	3.03	2.02	4.35
3.04	2.41	5.2	3.04	2.04	4.4
3.05	2.43	5.25	3.05	2.06	4.45
3.06	2.45	5.3	3.06	2.08	4.5
3.07	2.47	5.35	3.07	2.10	4.55
3.08	2.49	5.4	3.08	2.12	4.6
3.09	2.51	5.45	3.09	2.14	4.65
3.10	2.53	5.5	3.10	2.16	4.7
3.11	2.55	5.55	3.11	2.18	4.75
3.12	2.57	5.6	3.12	2.20	4.8
3.13	2.59	5.65	3.13	2.22	4.85
3.14	2.61	5.7	3.14	2.24	4.9
3.15	2.63	5.75	3.15	2.26	4.95
3.16	2.65	5.8	3.16	2.28	5
3.17	2.67	5.85	3.17	2.30	5.05
3.18	2.69	5.9	3.18	2.32	5.1
3.19	2.71	5.95	3.19	2.34	5.15
3.20	2.73	6	3.20	2.36	5.2
3.21	2.75	6.05	3.21	2.38	5.25
3.22	2.77	6.1	3.22	2.40	5.3
3.23	2.79	6.15	3.23	2.42	5.35
3.24	2.81	6.2	3.24	2.44	5.4
3.25	2.83	6.25	3.25	2.46	5.45
3.26	2.85	6.3	3.26	2.48	5.5
3.27	2.87	6.35	3.27	2.50	5.55
3.28	2.89	6.4	3.28	2.52	5.6
3.29	2.91	6.45	3.29	2.54	5.65
3.30	2.93	6.5	3.30	2.56	5.7
3.31	2.95	6.55	3.31	2.58	5.75
3.32	2.97	6.6	3.32	2.60	5.8
3.33	2.99	6.65	3.33	2.62	5.85
3.34	3.01	6.7	3.34	2.64	5.9
3.35	3.03	6.75	3.35	2.66	5.95
3.36	3.05	6.8	3.36	2.68	6
3.37	3.07	6.85	3.37	2.70	6.05
3.38	3.09	6.9	3.38	2.72	6.1
3.39	3.11	6.95	3.39	2.74	6.15
3.40	3.13	7	3.40	2.76	6.2

MONTHLY SURPLUS PRICES

4

How to Adjust Your Production to the Philadelphia Selling Plan

(Continued from page 2)

mixed herds. It is well to note, in this connection, that the changes to both high test and low test herds were made chiefly by those who had mixed herds.

Out of 555 replies to the question of contemplated change in breed, 90 stated they expected to change to high test, and 11 to a low test breed. If these intentions are carried out, calculating on the basis of test of herds that this group of farmers report they had in 1926, the percentage of herds, with high test in 1931, will be 34; those with low test 32, and mixed herds 34. In other words, while in 1926 the low testing breeds were somewhat more numerous than the high testing, the trend indicated in 1926, as well as that which has taken place in the preceding five years, is toward more high test herds. The expansion of grade A milk sales in the Philadelphia market is the chief factor in this trend, since high test milk has been required by distributors for grade A sales, although sanitary conditions of production are an equally great or greater factor in the grade A development. Today the attitude of producers on breed changes may be somewhat different than it was three years ago. Grade A milk as defined February 1, 1929, shall contain 3.7 per cent butterfat as delivered at receiving stations; and 4 per cent at terminal markets. The sales of "A" milk are now more than one-third of the total fluid milk volume sold by dealers cooperating in the Philadelphia metropolitan market. Unforeseen changes in marketing policies and in economic conditions may produce changes in this trend.

The Effect of Fat Test of Milk on the Cost of Production

It costs more to produce milk of high fat content than milk of low fat content, Table 3. Cost of production figures here used are based on cow-testing association records, and do not include cost of hauling milk. It must be recognized that average costs per 100 pounds for the region as a whole are higher than costs shown by cow-testing association data. With an average fat content of 3.3 per cent, the cost of producing 100 pounds of milk was \$2.33. With a fat content of 5 per cent, the cost of production was \$3.07 per hundredweight. With 1.7 pounds more fat per 100 pounds of milk, the cost of production increased 74 cents, although the cost did not increase uniformly with an increase in the fat content. This difference would indicate that four and one-half to five cents per point on the average would just about cover the differences in the cost of producing milk of different fat contents. That this does not tell the whole story of the difference in producing grade A or grade B milk is shown in the following discussion.

Grade B Milk

It is important for producers to determine what fat test will give them the highest returns above the cost of producing milk. The fat test that will give highest returns above costs depends on the price differential paid for each one-tenth pound of fat, and upon the ratio of this differential to the price paid for milk. Grade B milk carries a price differential of four cents per each one-tenth point. When the price differential is approximately 1.50 of the price of 3.5 per cent milk (4:200.1:50), it makes little difference to producers of grade B milk whether their fat test is high or low (Tables 4 and 5). When the ratio is more than 1.50, for example, 1.45 (4:180.1:45), then it would be better to produce high test milk. That is, with a price of only \$1.80 for 3.5 per cent milk, there

would be less loss on high than low test milk. When the ratio is less than 1.50, for example, 1.80, (4:320.1:80), then the highest returns above feed cost would be obtained by producing low test milk.

Grade B Milk

For grade A milk, it is shown in Tables 6 and 7, that when the price differential is six cents per each one-tenth point for milk of 3.5 to 4.5 per cent fat content, and eight cents for each one-tenth point above 4.5 percent fat, the highest returns above total costs are obtained by the production of grade A milk of relatively low test, when the price is more than \$3.20 per 100 pounds. A six cent differential would bear a 1 to 53 ratio to \$3.20. With prices \$3.20 or less per 100 pounds of milk, that is, with a ratio of 1-53 or more, for example, 1-47, (6:280.1:46.2-3), the highest returns above total cost are obtained by the production of grade A milk of relatively high fat test.

For grade A milk compared with grade B, it pays to produce high test milk a little farther up the price scale, that is, when the ratio is 1-53 or more, on account of eight cents differential being paid above 4.5 test. For grade B, the ratio must be more than 1-50 to make it profitable to produce high test milk.

What Fat Test to Produce

Assuming that costs and prices are so related that it pays to produce high test milk, when the price differential is more than 1-50 of the price for 100 pounds of 3.5 per cent milk, may we draw further conclusions as to the relative profitability of producing high test milk near the market, as compared with its production far from market? Since prices in the 1 to 10-mile zone are approximately 33 cents per hundred-weight higher than prices in the 291 to 300-mile zone, it follows that with the same price differential for fat in all zones, the price differential will always bear a higher ratio to price in the far distant than in the nearby zones. For this reason, it would appear that producers far from market would find it more to their advantage to produce high test milk than producers near to market. It is also true that there is a saving in freight per dollar of product sold, when milk of high test and consequently high value per 100 pounds is shipped.

Also, for the same reason, since the amount of surplus milk tends to lower the weighted average prices to producers, it it would appear that those who have large proportions of surplus milk, and hence, lower-priced milk, would find it more to their advantage to produce high test milk, than those who have little surplus, and hence higher-priced milk.

With a price differential of approximately 15.0 to 1-53 or more of the price of 3.5 per cent milk, it pays best to produce milk of relatively low fat test. For any individual producer, this principle is modified by his distance to market, and the amount of surplus milk he produces. Far from market and with considerable surplus production, there is more advantage in producing high test milk than when one is located near to market.

With business prosperity and high wage earnings, and the resulting heavy demand for milk of high fat content, premiums likely will be maintained sufficiently high to encourage the production of high test milk. On the other hand, if business conditions become unfavorable, and wage earnings low, consumers may not

TABLE III—Cost of Producing Milk of Different Fat Tests in the Philadelphia Territory, 1921-27

Fat Test	Number of Cows	Pounds of Milk Produced per Cow	Total Cost Per Hundred Pounds of Milk
3.3	673	8779	\$2.325
3.6	675	8394	2.380
3.8	426	7966	2.468
4.1	238	7241	2.666
4.4	219	6699	2.796
4.7	214	6283	2.939
5.0	167	5970	3.065

TABLE IV—Prices and Costs of Milk of Various Fat Tests When 3.5 Per Cent Milk Sells at Different Prices, with a Price Differential of Four Cents Per Each One-tenth Pound of Fat

Fat Test	Average cost of producing 100 pounds of milk*	Prices per 100 pounds of milk of various fat tests when 3.5 per cent milk sells at different prices.							
		\$1.80	\$2.00	\$2.20	\$2.40	\$2.60	\$2.80	\$3.00	\$3.20
3.3	\$2.304	1.72	1.92	2.12	2.32	2.52	2.72	2.92	3.12
3.6	2.380	1.84	2.04	2.24	2.44	2.64	2.84	3.04	3.24
3.8	2.468	1.92	2.12	2.32	2.52	2.72	2.92	3.12	3.32
4.1	2.666	2.04	2.24	2.44	2.64	2.84	3.04	3.24	3.44
4.4	2.796	2.16	2.36	2.56	2.76	2.96	3.16	3.36	3.56
4.7	2.939	2.28	2.48	2.68	2.88	3.08	3.28	3.48	3.68
5.0	3.065	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80

* Average cost of producing 100 pounds of milk in cow-testing associations in the Inter-State territory, 1921-27. Total costs include all feed and pasture, labor and overhead costs.

TABLE V—Returns Per Cow Above Total Costs* for Grade B Milk of Various Fat Tests, When 3.5 Per Cent Milk Sells at Different Prices, with a Price Differential of Four Cents Per Each One-tenth Pound of Fat

Fat Test	Average Annual Production per Cow	Milk Fat	Returns per cow above total cost, when 3.5 per cent milk sells at different prices.							
			\$1.80	\$2.00	\$2.20	\$2.40	\$2.60	\$2.80	\$3.00	\$3.20
Ratio of Differential to Price			1 to 45	1 to 50	1 to 55	1 to 60	1 to 65	1 to 70	1 to 75	1 to 80
3.3	8779	288	-51.27	-33.71	-16.15	+1.49	+18.96	+36.52	+54.08	+71.64
3.6	8394	298	-45.33	-28.54	-11.75	+5.04	+21.82	+38.61	+55.40	+72.19
3.8	7966	306	-43.65	-27.22	-11.79	+4.14	+20.07	+36.01	+51.94	+67.87
4.1	7241	298	-45.33	-30.85	-16.36	-1.88	+12.60	+27.08	+41.56	+56.05
4.4	6699	292	-42.61	-29.21	-15.81	-2.41	+10.99	+24.38	+37.78	+51.18
4.7	6283	298	-41.40	-28.84	-16.37	-3.71	+8.86	+21.43	+33.99	+46.56
5.0	5970	297	-39.70	-27.76	-15.82	-3.88	+8.06	+20.00	+31.94	+43.88

* Average production and costs in cow-testing associations in the Inter-State territory, 1921-27, are used as a basis.

TABLE VI—Prices and Costs* for Milk of Various Fat Tests, When 3.5 Per Cent Grade A Milk Sells at Different Prices, with a Price Differential of Six Cents Per Each One-tenth Pound of Fat Between 3.5 Per Cent and 4.5 Per Cent, and Eight Cents Above 4.5 Per Cent

Fat Test	Average cost of producing 100 pounds of milk*	Prices per 100 pounds of milk of various fat tests, when 3.5 per cent milk sells at different prices.							
		\$2.60	\$2.80	\$3.00	\$3.20	\$3.40	\$3.60	\$3.80	\$4.00
3.6	\$2.818	2.78	2.98	3.18	3.38	3.58	3.78	3.98	4.18
4.1	3.016	2.96	3.16	3.36	3.56	3.76	3.96	4.16	4.36
4.4	3.146	3.14	3.34	3.54	3.74	3.94	4.14	4.34	4.54
4.7	3.289	3.36	3.56	3.76	3.96	4.16	4.36	4.56	4.76
5.0	3.415	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00

* Average cost of producing 100 pounds of milk in cow-testing associations in the Inter-State territory, 1921-27, plus 35 cents. It was assumed that since the cost of producing four per cent milk, which sold for \$3.00 per 100 pounds, was approximately eight-ninths of the selling price, that eight-ninths of the 40 cent premium for low bacteria would be considered in additional costs. Total costs include all feed and pasture, labor and overhead costs.

TABLE VII—Returns Per Cow Above Total Costs* for Grade A Milk of Various Fat Tests, when 3.5 Per Cent Milk Sells at Different Prices, with a Differential of Six Cents for Each One-tenth Pound of Fat Between 3.5 Per Cent and 4.5 Per Cent, and Eight Cents Above 4.5 Per Cent

Fat Test	Average annual production per cow (pounds)	Milk Fat	Returns per cow above total cost, when 3.5 per cent milk sells at different prices (including 40 cents premium for low bacteria sold)							
			\$2.60	\$2.80	\$3.00	\$3.20	\$3.40	\$3.60	\$3.80	\$4.00
Ratio of differential to price			1 to 43	1 to 47	1 to 50	1 to 53	1 to 57	1 to 60	1 to 63	1 to 67
3.8	7966**	306	-3.01	12.90	28.84	44.77	60.70	76.63	92.56	108.50
4.1	7241	298	-4.05	10.43	24.91	39.39	53.87	68.36	82.84	97.32
4.4	6699	292	-4.00	13.00	26.39	39.79	53.19	66.59	79.99	93.38
4.7	6283	298	4.46	17.03	29.59	42.16	54.72	67.29	79.86	92.42
5.0	5970**	297	11.04	22.98	34.92	46.86	58.80	70.74	82.68	94.62

* Average production and costs in cow-testing associations in the Inter-State territory, 1921-27, are used as a basis.

** It is of interest to note that a six cent differential for 7966 pounds gives the same premium as an eight cent differential for 5970 pounds.

be able to buy the more expensive grades of milk. Under such conditions, it would be unlikely that premiums for butterfat would encourage the production of high test milk.

*The conclusions in this circular are based chiefly on a study of "The Relation of the Basic-Surplus Marketing Plan to Milk Production in the Philadelphia Milk Shed" by F. F. Linsinger. This bulletin was published in August, 1928, as Experiment Station Bulletin 231 of the Pennsylvania State College of Agriculture and Experiment Station. Those desiring a more detailed and more technical treatment can secure Bulletin No. 231 upon request.

Delaware Farmers Hold Dairy School Sixth Annual Meeting at Midway, Del.

Sussex County dairy farmers held their sixth annual dairy school at Midway, in Sussex County, Delaware, on May 25th, 1929. The meetings, one in the morning and another in the evening, were held under the auspices of the Extension Department of the University of Delaware; the Sussex Trust Company of Lewes, Delaware; the United States Department of Agriculture; the Inter-State Milk Producers' Association; the Philadelphia Inter-State Dairy Council, the Supplee-Wills-Jones Milk Company and the Nassau Milk Producers' Association, a local unit of the Inter-State Milk Producers' Association.

The meetings were held in the Community Hall, at Midway, and were opened by C. R. Snyder, Extension Agent for Sussex County, who introduced W. E. Thompson, president of the Nassau Milk Producers' Association. Mr. Thompson expressed his appreciation of the previous schools that had been held in previous years in that section, and expressed the hope that the present session would be of even greater importance to the dairymen of that section.

H. H. Davis, of the Supplee-Wills-Jones Milk Company, made an interesting address on "Testing Dairy Cows," who said in part:—"There are 36,000 Cows in the State of Delaware and only three-tenths of one per cent are listed in Herd Improvement Associations. I believe that it is necessary to test your cows in order to give the cow itself a square deal. The dairymen has a greater responsibility than the cow itself. A cow can produce if she is given a chance. It is not the price of milk that you should be worrying about, but rather that of having and developing cows that will produce milk at a profit. The price today is the best possible one that can be obtained, thanks to your Inter-State Milk Producers' Association."

"Are the farmers doing all that they should to produce milk economically? No one rule of procedure is necessary. If the fat content of the milk is low at one of our receiving stations, it must be corrected. Farmers must study each individual cow in the herd. 'Guess work' must be eliminated. This applies to production as well as butterfat content of the milk."

"I advise you to join a Cow Testing Association. It may cost a little more money, but it will pay you in the end. The individual cow production rate in this section is too low, as a rule, to be profitable to the producer. Increase your production per cow by economic methods. Find out if your cow, with proper feeding and care can produce economically. Form a Cow Testing Association and the Supplee-Wills-Jones Milk Company, will supply you with a testing machine and furnish the necessary acid for making the tests from their own plant."

"The Bull Club is another program of economic value to the dairymen. We are now considering a program along this line which we believe will be very beneficial to our producers."

C. I. Cohoe, Director of the Quality Control Department of the Inter-State Dairy Council, outlined a new educational program of the Dairy Council. That of "Selling Milk Salesmen on Milk." This is being done among the Milk Wagon Drivers or Milk Salesmen, educating them on the methods of production, handling, and the nutritional value of milk as a food.

H. D. Allebach, president of the Inter-State Milk Producers' Association made an address, reviewing "Milk Marketing Conditions and some of the Problems of

the Future." President Allebach briefly reviewed the general marketing conditions in the Philadelphia Milk Shed. "One of our early problems was that of adjusting supply to meet the demand and thereby obtain a year round uniform price. We had 35 per cent more milk in summer than in the fall months. We had to change this. After a careful study the Philadelphia Selling Plan was adopted. This plan has worked out very well in our territory. Surplus has been reduced to 11 per cent. A large number of our producers have successfully increased their average supply and the program, we believe is economically sound."

"I have been asked the following question by some producers—What has or what can your association do for me? Well, some years ago fluid milk was purchased on the basis of 46 quarts to the 100 pounds. We fought this with the result that a basis of 46½ quarts was established as the 100 pound basis and what did that mean to the milk producer? Well, it increased his price per 100 pounds just 4 cents, based on an 8 cents per quart sales basis. This again resulted in another gain to the producer in that freight rates based on 100 pounds were reduced to meet the new basis of payment. And that is just one thing—there have been many others, probably not so wide spread, but of importance in individual producing sections."

Mr. Allebach further reviewed market conditions and the price trend. He briefly reviewed the new uniform method established for producing A milk and its uniform methods of payment. He also referred to the advance in price on all milk, of approximately 11½ cents, during March and April of 1929, when through the effort of your association this advance was established owing to the generally higher costs of production during those months.

"Futher prices of milk are still a big problem and are being carefully studied by the officers of your association."

A general discussion followed the presentation of these addresses, which was led by Dean C. A. McCue of the University of Delaware, in which a number of interesting topics were brought out.

The meeting then adjourned for supper which was served by the ladies of the Rehobeth Presbyterian Church.

Evening Program

The evening session was opened with Community singing under the leadership of Thomas R. Ingram, of Lewes, Del.

Frederick Shangle, vice-president of the Inter-State Milk Producers' Association, was introduced as the first speaker on the evening program. He said in part, "The Inter-State Milk Producers' Association is increasing the purchasing power of the Sussex County dairymen. It has endeavored to develop systematic dairying methods, based upon economic principles, which if carried out means successful dairying and more profit for the producer. Proper feeding of dairy cattle, proper breeding methods, the observance of sanitary practices and the proper care of the milk are important factors in successful dairying."

Happy Goldsmith, of the Philadelphia Inter-State Dairy Council made an interesting talk on "Barnyard Golf" which emphasized the development of proper health habits.

The evening session closed with the presentation of the Inter-State and Dairy Council play, "What's the Big Idea." Those taking part included Robert Dwyer, C. I. Cohoe, Wesley Holmes, Earl Bechtel and Frederic Shangle.

National Legislation, Farm Relief—Tariff

Last summer both political parties pledged themselves to the relief of agriculture. Congress is now endeavoring to enact into law these pre-election pledges.

With respect to the tariff, there seems to be but little difference of opinion as to what should be done. All elements are agreed that in a country like the United States which is committed to the policy of a protected industry the tariff should be applied for the protection of agricultural producers as fully as possible. If, for instance, an adequate tariff on vegetable oils is passed by the Congress, and at the same time all Philippine products are admitted free there will continue to be a sufficient importation of vegetable oils from that source to nullify the effect of this proposal. Admitted free, copra and coconut oil from the Philippines have been for the past few years imported in sufficient quantities to practically exclude imports from countries against which our present tariff rates are enforced. Pressure from this and other sources in Congress is very strong. Therefore, the agricultural interests of the country have, at this writing, still a hard fight ahead.

The administration agricultural relief bill differs from all previous similar measures, in that it makes no provision for any of the so-called equalization plans. It contains, on the other hand, a provision for a stabilization corporation to be erected for each commodity by the cooperative associations marketing that commodity and to be operated and managed by them under the complete direction of a Federal Farm Board of seven members.

There is wide difference of opinion as to the way in which such a revolutionary measure will work. All agree however that it would be a very far reaching step. All likewise agree that it would change entirely the attitudes of the government toward production control. The very things that the government has told the oil industry and other industries that they could not do, it proposes by this measure to insist on agriculture doing in a very large way. There is not an entire agreement that it will work nor is there entire satisfaction on the part of some of the cooperatives that they want to be experimented on to this extent.

The Senate relief measure as introduced carried the Grange debenture plan, one which has been urged by that organization for some years but which was never seriously considered by Congress during the days when the equalization fee was uppermost in people's thought. Now everyone in Washington is endeavoring to figure out just how the plan would work.

The plan, in brief, provides for the giving to all exporters of products coming under its provisions, a document called a "debenture" equal in value to one-half the import duty on the products sold. This paper would be exchangeable at par for the payment of import duties on any products imported into this country. While taking no money directly out of the United States treasury, this bill it is expected, would reduce the total returns to the government from import duties. The administration seems to be opposed to the inclusion of the plan in the present legislation.

The Senate bill differs from the House bill in a number of other provisions, but not very widely. It also provides for stabilization corporations and for a Farm Board, but of a larger number than the House bill.

It will be interesting to see just what type of measure is finally passed and how it should be applied to American agricultural problems.

Eastern States Farmers' Exchange

Another Milestone

The rate at which farmers purchase feed and grain through the Eastern States Farmers' Exchange is a practical measuring stick of their opinion of the value of this co-operative buying service.

During the first three months of 1929, farmers purchased 10,000 tons more feed and grain than during the same quarter of 1928, the previous record first quarter of Exchange history.

As usual the dairy feeds which are used in so many of the leading herds in the herd improvement associations account for the great portion of the Exchange feed tonnage. There is one of these roughages found on eastern dairy farms. Each ration is composed of quality ingredients only. None are "price feeds." All are built to produce at low cost per unit of production.

The rapid increase in the demand for Eastern States Calf Ration, which was introduced October, 1928, is phenomenal. In October, 59 tons were distributed. The hundred ton mark was passed in December, and in March, 174 tons were shipped. Where records are kept Eastern States feeds prove their worth, and the thirty, rapid growth which calves are making on Eastern States Calf Ration is easily read by the keen dairymen who are consistently using Eastern States grain. Eastern States Calf Ration will be fed to thousands of spring calves this year. Dairymen who are raising calves from high producing dams recognize the economy in grain when they regularly, and Eastern States Calf Ration fits this program to a "T."

The demand for Fitting Ration continues to increase. Its value as a feed for heifers from a year old to their first calving and for dry cows is widely recognized particularly by dairymen who have checked its value against accurate figures in their herd improvement association books.

Space is too short to trace the growth in the demand for all Eastern States poultry feeds. Here are the most spectacular figures. Starting and Growing Mash shipments for the first three months of 1929 increased 94% over 1928, and Milk Egg Mash 150%. These concrete testimonials from thousands of dairy and poultry farmers mean a lot to thinking farmers.

No farmer is too small and none too large to benefit from Eastern States service. If you are also thinking of trying the service which thousands are endorsing with their patronage, write the office for information.

Eastern States Farmers' Exchange

A non-stock, non-profit organization, owned and controlled by the farmers it serves

HEADQUARTERS:
SPRINGFIELD, MASSACHUSETTS

Out of the Mud for Keeps!



A concrete-paved barnyard ends for all time wading through knee-deep mud and slush.

Manure saved soon pays its cost.

Improve the Barnyard Yourself

Simply follow our free instructions and you can build a permanent concrete pavement at a moderate cost.

Write today for your copy of the booklet giving complete information. It is free.

PORTLAND CEMENT ASSOCIATION

A national organization to improve and extend the uses of concrete

1315 Walnut Street, Philadelphia, Pennsylvania
Concrete for Permanence

WE CAN SAVE YOU MONEY

ON SPECIAL FORMULA MIXED

Dairy and Poultry Feeds

Our High Grade Brands of Dairy Feed

MERCER 24% MERCER 32% PURITAN 20%
SPECIAL 24% SPECIAL 20% STAR 16%

NOTHING BUT HIGH GRADE MATERIALS USED
WE ALSO DO CUSTOM GRINDING

J. R. WYCKOFF CO., Lawrenceville, N. J.

SPECIAL INQUIRY COUPON

J. R. WYCKOFF CO., LAWRENCEVILLE, N. J.

Please quote (without any obligation on my part to purchase) prices for the following grades of DAIRY FEED.

MERCER, 24%; MERCER, 32%; PURITAN, 20%; SPECIAL, 24%;
SPECIAL, 20%; STAR, 16%

(Check grade on which you want prices)

SPECIAL FORMULA MIXTURES—
(Specify materials to be used)
SPECIAL POULTRY FEED

Name.....
ADDRESS.....

TRADE MARK **NICE** REG. U.S.A.

THE NAME TO GO BY—WHEN YOU GO TO BUY

PAINT AND VARNISHES

Write for color Cards and Booklet "Paint Pointers"
EUGENE E. NICE COMPANY, Inc., PHILADELPHIA

Montgomery County Cow Testing Associations Hold Annual Banquet

The Montgomery County Cow Testing Association No. 1 and the Montgomery County No. 2 Cow Testing Association held their joint annual banquet on April 5th, in the Keystone Grange Hall, Trappe, Pa. More than 75 members and their wives attended.

Alvin K. Rothenberger president of the Montgomery County Association acted as toastmaster while Charles E. Wisner lead the community singing.

Addresses were made by R. W. Balderston, Secretary of the Inter-State Milk Producers Association; D. H. Bailey, Dairy Extension Specialist, Penn State College; "Happy" Goldsmith of the National Dairy Council and Miss Helen Beyerle of the Philadelphia Inter-State Dairy Council.

An interesting playlet, "Listening In," emphasizing the value of milk in diet was presented by Miss Louise Everets, Miss Helen Beyerle and Dennis Cantler of the Philadelphia Inter-State Dairy Council.

The committee in charge of the arrangements consisted of H. D. Allebach, Charles E. Wisner and R. G. Waltz.

At the close of the program, Mr. Rothenberger awarded the ribbons given by the Pennsylvania Dairymen's Association to all members whose herds had averaged more than 300 pounds of butterfat for the year.

Ribbons were awarded to the following: William H. Landis, East Greenville; Levi Schultz Estate, Palm; Compton Farm, Chestnut Hill; Ursinus College, Col legeville; Owen S. Gerhard, Palm; W. C. Randolph, Royersford; H. D. Allebach & Son, Trappe; Charles E. Longacre, Royersford; Mrs. Howard Bieler, East Greenville; C. William Haywood, Ambler; O. M. Wood ward & Sons, Pennsburg; L. K. Rothenberger, Worcester; J. L. Wood & Sons, Red Hill; Camp Discharge Farm, Conshohocken; Warren G. Schultz, East Greenville; Willow Creek Farm, Penlynn; Erdenheim Farm, Norristown, R. D. 4; C. E. Ingersoll, Penlynn; Frank Brickman, Red Hill; William Pratt, Willow Grove; State Hospital, Norristown; J. L. Overly, & Sons, Red Hill; Daniel Buckley, Broad Axe; William Stephens, Collegeville.

Do Not Pasture Too Soon

Do not turn cows out to pasture too soon, say Penn State dairy specialists. Early pasture grass is very watery and so is the food value. Another reason for delaying is that pasture yields for the season will be much greater if the grass is permitted to get a good start.

Good ensilage is a long step toward economical milk production.

Farmers Cautious in Planning 1929 Acreages

Farmers are planning this spring to plant acreages of most crops with an expansion of about two per cent in the aggregate area but are planning some marked shifts between crops as indicated in intentions-to-plant reports received by the United States Department of Agriculture from 50,000 farmers in all parts of the country.

"If farmers carry out their present plans, there would seem to be a reasonably favorable market outlook for all hay and feed crops in the Western States, alfalfa for markets, potatoes for market after the first of July, sweet potatoes, rice, flax, large-type peanuts and most types of tobacco."

Farmers are cautioned, by the bureau, however, to reconsider intended increased acreages in beans, spring wheat, Burley and flue-cured tobacco, and cabbage in certain areas. "Present numbers of livestock, it is pointed out, indicate no material change in prospects for farmers growing hay and feed crops for sale, except in some Western and Northwestern areas, where the severe winter has depleted reserves."

"Spring wheat farmers," the bureau says, "should watch for the April winter wheat report and be guided by it in determining whether to increase the acreage of hard spring wheat. Should the intended increase in acreage of hard red spring wheat of 8.8 per cent be carried out and average yields be obtained, a production of hard red spring wheat only slightly less than in 1928 would result."

"The combined acreage of the principal feed grains, corn, oats, barley, and grain sorghums, as now planted is unchanged from the acreage harvested last year and remains 3 per cent above that of 1927. Farmers indicate intentions to increase tame hay acreage approximately 3 per cent above that of 1928. Average yields on this acreage will result in sufficiently increased production to provide a surplus of market grades of hay in the North Central States as contrasted with the present shortage."

"Potato growers indicate they intend to plan 3,418,000 acres of 10.6 per cent less than that harvested last year. Allowing 2 per cent for usual loss of acreage from flood, hail, drought, blight, and other causes, this intended acreage would leave about 3,350,000 acres for harvest next fall compared with 3,825,000 acres harvested in 1928 and 3,476,000 acres in 1927. With average weather conditions, this acreage would produce somewhere around 390,000,000 bushels, a production which would furnish about the usual supply of potatoes after the heavy holdings from the 1928 crop are off the market."

Uncle An says the great men he has known owed their eminence more to character than to cleverness.

(Continued from page 5)

April, 1929, Inter-State Prices at "A" Delivery Points

Notes—

- (2) The butterfat differential of 6 cents per 1-10 per cent. B.F. will not be paid unless the bacteria requirements are met, nor will bacteria bonuses be paid unless the butterfat test is equal to, or higher than the minimum requirement of the delivery point where the milk is delivered. In other words, no premium of any kind except 4 cents per 1-10 per cent for butterfat above 3.50% will be paid unless the butterfat test of milk delivered is above the minimum butterfat requirement in effect at the delivery point where delivered and unless the bacteria requirements of class I, II, III or IV are met.

Illustration—

Shipper Brown delivers to the Oxford, Pa., Receiving Station. His milk tested 4.85% butterfat in April. The average bacteria count of his milk was 14,500. He had qualified for Class I bacteria bonus; three months during the summer of 1928, one of which was July or August. He is therefore a Class II Shipper in April, 1929.

The base price for 3.50% milk at Oxford is \$3.03 per 100 lbs. (See Table I). The combined Class II bacteria and butterfat payment for 4.85% butterfat milk is \$1.13 per 100 lbs. (See Table II). Shipper Brown's price for "A" milk in April is therefore \$3.03 plus \$1.13 or \$4.16 per 100 lbs.

This Son of Bess Johanna Ormsby to be Sold at National Holstein Show

PHILADELPHIA, JUNE 6-7, 1929



WINTERTHUR BESS ORMSBY HERALD
Born December 26, 1926

A rare opportunity to secure one of the outstanding bulls of Holstein breed.

Four other sons of Bess Johanna Ormsby are in service at Winterthur.

HIS SIRE



WINTERTHUR BESS BURKE BEST

26 A. R. daughters
Dam—Spring Brook Bess Burke 2nd
FOUR records above 1000 lbs.

HIS DAM



BESS JOHANNA ORMSBY

FOUR 7 day records above 40 lbs.
FOUR long-time records above 1000 lbs.
1497 lbs. butter, 30,143 lbs. milk in 365 days

Eleven females from the Winterthur Herd also consigned to this sale, all of which are closely related to the great cow BESS JOHANNA ORMSBY

WINTERTHUR FARMS

WINTERTHUR, DELAWARE

Garlic Odor Inhaled by Cows Flavor the Milk

Milk containing objectionable flavors probably causes as serious losses to the American dairy industry as the production of milk that sours, according to C. J. Babcock, of the United States Department of Agriculture. Dairymen, he says, are giving considerable attention to keeping their products sweet, but are not paying as much attention to the flavor and odor. Yet a pleasing flavor will have a tendency to extend their market through increased consumption.

Two weeds—garlic, or wild onion, and bitterweed—are of considerable economic importance in affecting milk flavor in many dairy regions. Garlic, or wild onion, has almost instantaneous effect. Experiments carried on by the Bureau of Dairy Industry show that garlic flavor can be detected in milk drawn from a cow 1 minute after she has consumed one-half pound of garlic tops, and in milk drawn 2 minutes after she has inhaled garlic odor for 10 minutes. It is necessary to remove

cows from garlic-infested pastures from 4 to 7 hours before milking to prevent the garlic flavor in the milk. Bitterweed, found particularly in the South, makes the milk bitter, and, unlike most feeds, the effect of eating bitterweed does not pass away between milkings.

"The only method of preventing bitter milk in sections where this weed is abundant," says Mr. Babcock, "is to keep cows off infested pasture until the weeds can be exterminated."

"The best way to control off flavors in milk is to prevent them," says Mr. Babcock. "In the production of palatable milk preventive measures are always best. Therefore dairymen should (1) feed milking feeds just after milking, (2) keep cows and barns clean, (3) properly ventilate cow stables, and (4) aerate milk in order to decrease the intensity of feed and barn taints. Finally, prompt cooling and storing of milk at a low temperature will retard the development of flavors and odors from biological action."

California Dairymen Gain Million by Better Methods

Owners of dairy cows in California have added \$64,297,051 to their income over a period of seven years by raising the average butterfat production per cow for the entire State from 183 pounds in 1920 to 239.2 pounds in 1927, says B. H. Crocheron, director of cooperative extension work in California, in a statement submitted to the United States Department of Agriculture.

At the beginning of the effort in 1920 the California extension service set up as a goal, to be reached in 10 years, a State average production of 265 pounds of butterfat per cow. Seven years' concentration on a dairy improvement program, including proper feeding, breeding, and culling, has brought them well on their way to accomplishment of the goal within the time set.

During the seven years the number of cows under test in the regularly organized cow-testing or dairy-herd-improvement associations increased from 30,000

to over 70,000. The work of these associations is the basis for the improvement program. From the testing records is derived the information necessary for proper feeding, breeding, and the detection of unprofitable animals in the herd.

Other factors in bringing up the average in butterfat production have been competitions both in individual production and community records, efficiency studies of individual herds, use of better breeding stock, improvement of health of herds, provision of better facilities for care and management of herds, and the introduction of better management methods and better stock through the dairy work of boys and girls who are members of 4-H clubs. Only the sustained effort of the extension staff and dairy cattle owners on a long-time program, however, Director Crocheron believes, has made it possible to thus move forward the entire production of a State and collectively influence the average of over half a million animals.



Dairy By-Products*

A recent review of the relation of chemistry to the dairy industry points out that in 1926 only 46 per cent of the milk produced was sold for household purposes, presumably in the wet original state. This emphasizes the importance of the manufacture of other products in the dairy industry. Among these are butter, cheese, ice cream, condensed milk and dry milk powder, all of which are highly important in the dietary of the nation. However, the by-products of the dairy industry, while not of primary interest in nutrition, constitute materials of commerce whose character, volume and value are not always realized. Approximately 23,000,000,000 pounds of skim milk is produced in the manufacture of butter alone. This by-product contains 800,000,000 pounds of protein, some of which is used to make soft cheese and some in the manufacture of casein plastics, adhesives, and substitutes for tortoise shell, bone and celluloid, but much of which is wasted. About 1,000,000,000 pounds of skim milk is now being converted into dry powder, which is used extensively in the ice cream and baking industries. The whey resulting from the manufacture of cheese amounts to about 4,000,000,000 pounds annually, and the field of the utilization of this potentially valuable by-product has scarcely been touched. Lactose, fat, salts and protein can all be recovered from the whey. These rough data convey an idea of the magnitude of one phase of the use of milk little realized by those to whom it represents primarily a food. The dairy husbandry experts are constantly urging greater and more economical production of milk through improved feeding and breeding. The industrial chemist now points out the tremendous conservation that can be practiced, once research has shown the way to utilize the by-products of the dairy industry.

*Journal A. M. A., 2-2-1929

Milk in Home Refrigerator Keeps Best at 45 Degrees or Lower

To keep milk in the best possible condition in the household refrigerator a temperature of 45° F. or below in the milk compartment is desirable. This conclusion is the result of studies recently made by the Bureau of Home Economics of the United States Department of Agriculture to determine the temperature and conditions that should be maintained in the home refrigerator to keep milk for the length of time it is ordinarily held. Refrigeration is used to retard the development of bacteria in milk and prevent the decomposition brought about by these organisms, and so keep the milk as nearly as possible in the original wholesome condition.

Your body is your lifetime servant. If you abuse that body, it may not show serious effects at once, but all the time it is piling up liabilities against you, and these bad debts will show sooner or later. Give your body a square deal and it will give you a square deal and more; it will give you pure blood and strong muscles, and a clear active brain.

—John Irving Sowers.

Apron Strings

How a bolt of bleached muslin reorganized the cleanliness standards of an entire community is told by Emma S. Jacobs in a recent issue of the Journal of Home Economics. Social workers who were pioneering in home economics among the negroes of Virginia decided to send the muslin to a particularly poor and unattractive school so that it could be made into aprons which were needed before cooking lessons could start.

"The aprons were cut, and the children had begun sewing, when they decided that the aprons would be dirty before they were finished because everything about the place, even the children themselves, was so dirty," writes Miss Jacobs. "Evidently things must be cleaned up at once, and they all turned from sewing to laundry lessons and general cleaning. Such washing, scrubbing and cleaning had never been seen in the community! When



Tricks in the Refrigerating Trade

Color has nowadays invaded every part of the house, including even the electric refrigerator as was shown in a model electric kitchen at the first Refrigeration Show held recently in Philadelphia.

This Refrigeration Show was visited by thousands of homemakers, many of whom had not yet acquired the use of this latest invention in kitchen convenience, but who were interested in the important part which refrigeration of any kind plays in food preservation.

Demonstrations of tricks in the trade were conducted by Nancy Carey of the Philadelphia Public Ledger, Mrs. Mildred Maddocks Bentley, Director Delineator Home Institute, and others. Many of these pointers are useful to every woman whether she is the user of the latest model of electric refrigerator in robin's egg blue, or of a simple home-made device.

To begin with, say these demonstrators, a refrigerator should be looked upon as the food warehouse of the family, which if rightly used, spells economy. The more easily a food is assimilated, the more easily it spoils. Therefore, the colder it should be kept.

Milk, soup stock and butter should be put into the coldest part of the refrigerator. As butter absorbs odors and flavors readily, it needs to be kept in a tight container or its original wrapper. Soup or gravy should be put while hot into a scalded jar with a tight cover. When

cooled, place in the refrigerator without without opening the lid. This method lengthens the time you may keep it.

Moist foods such as cereals, custards and cream sauces spoil easily and need a front row seat in the refrigerator.

Do not leave paper wrappings on fresh meats. It tends to make them develop a slime. Cooked meat, which dries out too quickly, should be put into a covered container.

Lettuce and celery will stay crisp longer if wrapped in a damp cloth or a piece of oiled paper.

Do not wash strawberries and other small fruits or remove hulls until you are ready to serve them. They are subject to a white mold which causes quick decay. A cold dry air checks this mold.

Foods, such as cabbages, oranges and apples, having a decided odor, must be specially considered and are best placed near the source of air currents.

Don't put ice inside the cut melon. It dilutes the melon juices. Instead, chill the melon in the refrigerator, and serve it on a bed of fine ice.

Keeping a refrigerator jar for salads will solve the problem of crisp green salads. One with a flat tight lid is preferable.

Many people place lettuce and celery in the same compartment with the ice, and often actually in contact with it. This results in the red discoloration often seen on lettuce.

Remember that nothing but ice should go into the ice compartment.

Milk in Nutrition*

That milk holds a very important place in human nutrition was proved a couple of years ago by a series of tests conducted by the Scottish Board of Health on the feeding of a large number of school children. The results were so important that the experiment was continued, and the second preliminary report has now been published.

The study was carried on at seven centers, the number of children concerned being 1,425. At each center the children were divided into four groups, one of which received whole milk, one separated milk, one a biscuit ration having the caloric value of the separated milk, while the fourth acted as controls, receiving no special diet. The whole milk averaged 3.85 per cent butter fat and the separated 0.33 per cent. Measurements were made four times, except at Belfast, where only three were done. The work was carefully controlled and every effort made to obtain accurate average results, taking consideration the difference between the winter clothing worn at the beginning and the lighter clothing at the end of the study.

The results have more than justified the conclusions drawn from the first set of experiments. For all ages the great value of a milk ration given at school in addition to that used at home was clearly demonstrated. Children who took part in both tests showed the benefit of the ration to an even greater extent than in the first test, their improvement continuing over the second year.

An interesting feature is the comparison of the groups receiving separated and whole milk. For most of the groups, there is no "significant" difference, but in the 6-year old group, whole milk gives "significantly" better results for both weight and height. In all groups, those receiving milk, either separated or whole, showed better results than those receiving the biscuit ration or the controls. The difference between those receiving the extra biscuit ration and the controls is practically negligible.

Once again the value of milk has been conclusively shown, and while skimmed milk gave excellent results in the second as well as in the first experiment, it must be remembered that it supplemented a certain amount of milk received by these children at home, and the conditions do not furnish a clear comparison between the value of whole and separated milk.

There is no question that whole milk is a more complete food than separated milk, but the experiments certainly demonstrate, as pointed out in the first preliminary report, that the latter is an excellent article of food, and in countries like England, where the expense of whole milk and butter is practically prohibitive to many of the poorer class, it supplies a wholesome and nutritious food, which, supplemented by small amounts of fresh vegetables, makes an adequate diet.

The conclusions drawn from this, as well as other similar investigations, strengthen the opinion that milk is the single most perfect food, and is a primary factor in the growth and nutrition of children. The campaign for the increased use of milk by children and adults alike is based on sound facts.

*American Journal of Public Health

Electricity May Save Farmer Money

Electricity on the farm is a cheap hired man, a desirable convenience or an expensive luxury according to its use, says R. F. Buckman of the New York state college of agriculture. Farmers who use a large number of labor-saving devices which can be operated electrically may save the costs of many days of labor.

According to the farm management department at Cornell, 215 farmers claim to have saved an average of 40 days a year through electricity obtained from central stations. Farmers who are using home plants reported an average saving of 26 days for the year. Electricity may be used for the operation of milking machines on dairy farms, to run a motor for the farm shop, for separators, churns, and other machines which tend to cut down the irksome tasks of farming. A new use which seems to have much promise is a small automatic feed grinder which can be filled and started and then forgotten. A two-horsepower motor operating a small burr mill is fitted with a hopper which will contain about 600 pounds of grain. When this batch is ground the motor is automatically switched off and no further attention is necessary until there is some more grinding to do.

Electric Refrigeration Used

Dairy farmers are interested in electric refrigeration, and satisfactory cooling units are on the market. The farmers who consider its use should take care to see that the tanks are properly installed. The farmer who has no ice house or who needs to go to great expense for harvesting and storage of ice can well afford to look to the use of electricity.

Barclay Farms' Ayrshires Rank High in U. S. for Production

During February the eight Ayrshires owned by Barclay Farms, Rosemont, Pennsylvania, ranked among the leading producers in the United States on their average production of 689 pounds of 4.11% milk, 28.29 pounds of butterfat, tested under the rules of the Ayrshire Herd Test, according to Advanced Registry Superintendent W. A. Kyle of the National Ayrshire Breeders' Association at Brandon, Vermont.

The outstanding productions for individuals in the herd were those of Barclay's Miss Tibbie, a four year old, that produced 1482 pounds of milk, 65.06 pounds of butterfat; and Barclay's Mary Iris, a five year old, that produced 1666 pounds of milk, 60.14 pounds of butterfat.

Philadelphia Inter-State Dairy Council Incorporated

General Offices
Flint Building, Philadelphia
A co-operative movement established for the dissemination of information and publicity pertaining to the production and distribution of dairy products and their food value in nutrition.

Affiliated with the National Dairy Council

Officers
Dr. Clyde L. King, President
H. D. Allebach, Vice President
R. W. Dalderton, Executive Secretary
R. J. Harbison, Jr., Treasurer

Departmental Branches
C. I. Cohee, Director Quality Control Department
Lydia M. Brecker, Nutrition Department
Del Rose Macan, Dramatic Department

Uncle Ab says the great men he has known owed their eminence more to character than to cleverness.

Invest Now in August Milk

WHEN you look at May pasture, and May milk production, it's easy to forget all about cow feed.

But nature moves right on. Almost before we know it the hot days of July and August have burned the pasture, flies are worrying the cows, and milk production is down.

But milk and cream checks will be bigger than ever for the thousands of Cow Chow feeders. They'll feed Orange Checker (16%) Cow Chow while grass is fresh and green.

When grass turns yellow and gets

low in protein, they'll change to Green Checker (24%) Cow Chow. Then when flies get bad and pastures parched, they'll add Bulky-Las. It's sweet and clean, and supplies just what dry grass lacks.

Summer . . . fly time . . . all times . . . there's a Purina ration to fit your needs. Join the ever increasing army of Checkerboard users, who deposit the most cash in the bank per cow, each twelve months.

Give your checkerboard feed dealer an idea of your requirements, so that he'll be ready to supply you as conditions change.

PURINA MILLS

854 Gratiot Street
St. Louis, Mo.



Sold at the stores with the checkerboard sign in the United States and Canada

Make the Roadside Stand Attractive to Customers

Dr. William Stuart, of the United States Department of Agriculture, suggests several rules for marketing of potatoes at roadside stands. His suggestions apply particularly to potatoes, but are also applicable to other farm products.

Grow the variety most popular with the consuming public.

Harvest the potatoes only as rapidly as they may be needed, when this is practicable.

If soil adheres after digging wash the

potatoes before putting them on sale.

Grade them into fairly uniform sizes—4-ounce and 12-ounce potatoes do not match up well.

Display the potatoes in small packages, 4-quart peach baskets, climax grape baskets with handles, or any clean, attractive, and convenient container.

Don't be afraid to ask a fair price for your product, but not more than the retail store price for similar goods.

Doctor Stuart also warns against offer-

ing cut, bruised, sunburned, or badly scabbed potatoes as quality stock. "It is much better to feed them to your stock."

"If the grower follows these suggestions," says Doctor Stuart, "the quantity of potatoes that may be sold at the roadside stand is limited only by the amount of travel on the highway. Don't expect the public to patronize you if you offer a non-descript lot of fruits and vegetables, unattractively displayed and of poor quality."

"What's the Big Idea"

A Light Comedy with a Heavy Plot



NEW EDUCATIONAL PLAY

Now Available for Inter-State Meetings

Presented by the Inter-State Milk Producers' Association and the Dairy Council, together with addresses on

"The New Milk Marketing Problems"—by H. D. ALLEBACH, President of the Inter-State Milk Producers' Association.

"Selling Milk Salesmen on Milk"—by C. I. COHEE, Director of Department of Quality Control, Dairy Council.

"Barnyard Golf"—twenty minutes of fun and entertainment by HAPPY GOLDSMITH.

THE NEW PLAY

"WHAT'S THE BIG IDEA"

A light comedy with a heavy plot

The cast of characters in the order of their appearance:

Bill Shiftless	ROBERT M. DWYER
Dean	CURTIS I. COHEE
Jennie	WESLEY S. HOLMES
Idy	EARL P. BECHTEL
The Stranger	FREDERICK SHANGLE

PLACE—Any Crossroad Store
TIME—Two P. M., summer of 1918

THERE ARE A FEW OPEN DATES

Make Your Reservations Early

FOR PARTICULARS ADDRESS

C. I. COHEE, Director

Philadelphia Inter-State Dairy Council

219 NORTH BROAD STREET PHILADELPHIA

"Herd About Town"

The Kraft Cheese Co., who purchased the P. E. Sharpless Co., Cochranville, Pa., has recently sold their milk supply, together with the Cochranville receiving station, to Abbotts Dairies, Inc. The Kraft Cheese Co. retains the Concordville factory. The milk supply of the Concordville plant has been transferred to Abbotts, 16th & Tasker plant in Philadelphia as direct shipped milk. The Abbott Company is operating the Cochranville station as a "B" milk plant.

It is reported that the Elverson receiving station will be closed in the near future. This plant has been operated by the Abbotts Dairies, Inc. The milk will go as direct shipped milk to Philadelphia.

The Supplee-Wills-Jones Milk Co. has closed the station at Milford, N. J., effective April 29th. This move became necessary due to the shortage of the supply at that point, as a result of inroads made upon it by buyers in northern New Jersey cities.

The milk supply at Centerville, Md., operated by Harbisons' Dairies has been temporarily turned over to the Pet Condensed Milk Company, Greensboro, Md.

This move was made necessary, according to Harbisons', because of trouble with garlic in the milk supply. It is expected that the supply will be taken back by Harbisons', June 10th.

It is reported that the cheese company operating at Middletoan, Del., is having difficulty with garlic milk condition of their supply, and the high color of the curd as a result of grass feeding. They have recently transferred their milk supply from the manufacture of cheese to the Pet Condensed Milk Co., at Greensboro, Md.

The new dairy building of the Wawa Dairies located at Wawa, Pa., is rapidly being pushed to completion. This plant modern in every detail will bottle milk for Philadelphia and suburban deliveries.

The Supplee-Wills-Jones Milk Co., it is understood, have placed about one dozen delivery wagons in Trenton, N. J. Milk is at present being delivered from their bottling plant at Camden, N. J.

The Brewster-Ideal Chocolate Company at Lititz, Pa., has ceased buying milk direct from farms and their supply at that point has been turned over to the Lancaster Sanitary Milk Co.

The York Sanitary Milk Co., the Lancaster Sanitary Milk Co., and the Ideal Milk Products Co. of Lancaster, Pa., have merged, forming the Penn Milk Products Company, Inc.

The Scott-Powell Dairies have been reported as contemplating the building of a plant in the vicinity of Dagsboro and Millsboro, Del., from which points they are now receiving milk by truck at their Snow Hill, Md. plant.

Breuninger's Dairies have issued notice to all their shippers that they must sign up for the T. B. test on or before June 1st, 1929.

In 1924 the United States Department of Agriculture made a survey of milk consumption in Philadelphia. Plans are now under discussion for a new survey in 1929, in order to mark the progress being made in milk distribution in that city over a five year period.

FIELD NOTES

Coventry Cow Testing Association Holds Fifth Annual Meeting

The Coventry Cow Testing Association, held its Fifth Annual Meeting and Banquet on March 27th, at the South Coventry Consolidated School, in Chester County.

Forman H. Gyger, acted as toastmaster at the annual banquet, when addresses were made by Lewis R. Shingle, on "The Tester's Record;" H. L. Stoltzfus, president of the association made his formal report; Happy Goldsmith, of the Inter-State Dairy Council made an address on "The Greatest Show on Earth." An address was also made by the Hon. R. G. Bressler, Deputy Secretary of Agriculture, Commonwealth of Pennsylvania.

During the past year there were 19 whole year members in the association. There were 600 cows in the association during all or part of the year.

A new cow testing association was formed at a meeting of dairymen held on March 26, 1929, at Wolf's Hall in Newark, Delaware.

The new association is to be known as the New Castle County Cow Testing Association. Paul Mitchel, J. R. Danks, T. Harold Little, George Pierson, and George Burge were elected directors. These directors elected Paul Mitchel president and J. R. Danks, secretary-treasurer.

Karl Leinen was selected as the tester of the new association. Mr. Leinen is a four-year graduate of a German Agricultural College and has for some time been associated with Winterthur Farms.

—J.T.P.

The Snow Hill Receiving Station of the Scott-Powell Dairies, at Snow Hill, Maryland, which began operations about six months ago, has now reached a daily volume of 100 cans per day. —C. R.

Three Eastern Shore of Maryland counties, Kent, Queen Annes and Talbot have completed the initial tuberculosis test of dairy cattle in those counties. This was done on a county wide basis. —C. R.

Washington Council, Maryland Rotary Launches T. B. Test

The Rotary Club of Hagerstown, Md., launched last month a program of testing dairy cattle in Washington County, Md., for tuberculosis. Dr. E. B. Simonds of the Maryland Live Stock Sanitary Board, who was introduced by County Agent, Milton D. Moore, was the principal speaker. He outlined the T. B. testing program of the state and urged the business men to get behind the testing work as a community duty.

Grow Emergency Hay

Soybeans are recommended by Penn State farm crops specialists as an excellent emergency hay crop. The bean is tolerant of acid soils and produces a hay of high protein content and feeding value comparable to alfalfa.

Capacity crowds have been attending the Inter-State and Dairy Council meetings to hear the new play "What's the Big Idea." In response to many requests programs including this play will be given in some sections, beginning with May 13th. It is expected that all the present requests for this program will be covered by September 1st.

Must Learn to Live with Beetle

The Japanese beetle is now firmly established in Pennsylvania and the people of the Commonwealth must learn to live with it, entomologists of the Bureau of Plant Industry, Pennsylvania Department of Agriculture, explain in a recent publication on this insect.

The bulletin not only describes the beetle and the damage it causes to crops and foliage of trees, but also gives a complete discussion of effective control measures.

In discussing traps, specialists of the Bureau point out that this method is still somewhat in the experimental stage, stating further that during the last few years considerable work has been done by the Federal Department at Moorestown, N. J., in devising an efficient trap. One particular type has been successful in capturing large numbers of beetles.

"The Japanese beetle has various natural enemies and several species of insect parasites have been successfully established," the entomologists explain. "The most promising species are certain flies and small wasp-like insects and it is believed that before long they will become an important factor in beetle control."

In reference to birds as enemies of the beetle, the bulletin states, "According to the Federal Department of Agriculture, the purple grackle and starling are probably our most important bird enemies of the beetle. Remnants of beetles have also been taken from the stomachs of the king bird, cardinal, meadow lark, cat bird, quail, great crested fly catcher, crow, red-winged black bird, English sparrow, vesper sparrow, brown thrasher, wood thrush and the robin. English pheasants show a great liking for both dead and living Japanese beetles."

"No record has been made of the feeding of skunks on the Japanese beetle," the bulletin states, "but it seems safe to assume that both the beetles and the grubs would be devoured by these animals, since many native species belonging to the same group are eagerly sought by the skunk."

This new publication is entitled "The Japanese Beetle in Pennsylvania," and can be secured by any interested person by writing to the Department of Agriculture, Harrisburg, Pa.

Cattle Prices Move in Cycles

It is well known that cattle production and consequently cattle prices move in cycles. Three rather well-defined complete cycles took place in the last half century.

The first of these price cycles started somewhat before 1880 and ended around 1891, the second started around 1891 and ended about 1906, and the third started around 1906 and ended around 1923.

The cattle industry now appears to be at the low point of a production cycle. Cattle prices reached high levels in 1927 and 1928, and the department advises producers to bear in mind that a downward trend will undoubtedly take place eventually.

Price cycles and production cycles are, of course, correlated in inverse movements. Declining production tends to be associated with rising prices and vice versa. As the entire process originates in production changes, the prudent cattleman will study carefully recent production figures. Since 1918 a steady decline in the number of cattle on farms has taken place, and the number in 1928 was about the same as the number in 1912, in which year the preceding cycle passed its low point from the standpoint of the number of cattle on farms.

Budgetary Control and Management Efficiency

By A. V. SWARTOUT

Efficient management of co-operatives is fundamental to continual successful operation. It is, of course, essential to all business, but probably is especially important in farmers' marketing organizations because of the peculiar psychology involved and the large number of individuals directly interested.

Low costs of operation, high sales prices and similar tests of satisfactory operation which are usually applied to business operations, are valuable only when it is possible to compare them with some standard or with the same items in other organizations operating under similar conditions and performing similar services. However, any attempt to apply such comparative tests as a means of determining how satisfactory the operations have been, and the point at which efforts towards improvement should be directed, is met with some almost unsurmountable difficulties. In the first place, there is very little information available in the form of comparable costs for similar organizations, and prices realized by competitors are not, naturally, given very great publicity. Further, the incidental services performed by co-operatives for their members are much more numerous than those performed by private organizations, even if the marketing services are fairly similar, which they usually are not. To compare the costs and results under such unlike conditions is of very little use. And yet there is a need for comparison with some standard.

The answer to this need has been the application of scientific analysis to business operations, and the development of a method of checking up on current operations, which in most discussions has been termed "budgetary control."

One banker who has had a great deal of experience with it, probably more than any other in this country, recently made the statement that he had yet to see any business, and he believed there was none, which could not be brought out of its difficulties and into a better position through the use of budgetary control.

In brief, the following five points summarize what can be accomplished through budgetary control:

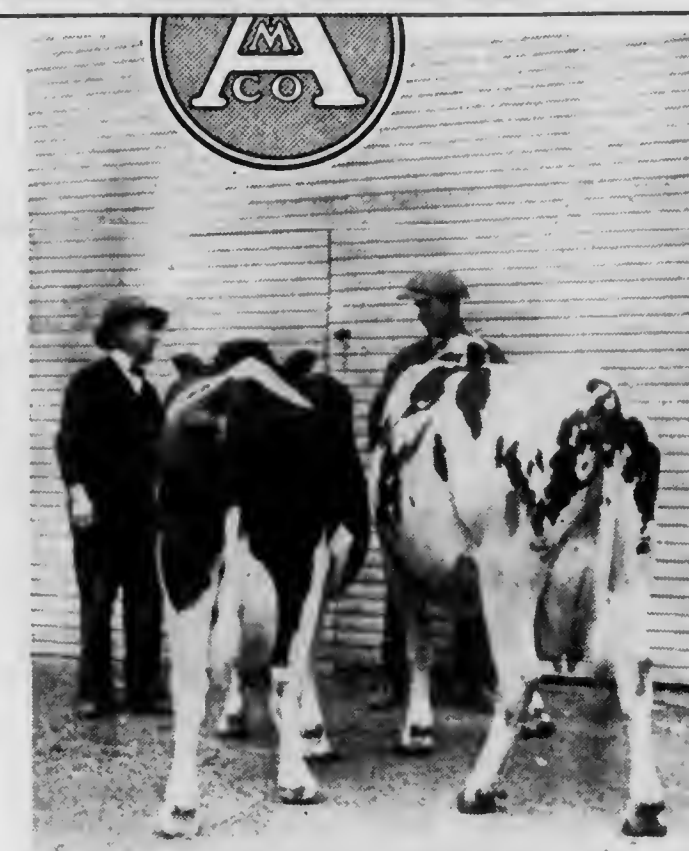
1. Budgeting substitutes definite facts and figures for guesswork, and intelligent planning for blindfold fumbling.
2. It employs co-operation, and it does more, it enforces co-operation, indeed, creates it.
3. It serves to materialize contemplated actions in such a way that the results of those actions become known before the actions themselves are set in motion.
4. It helps to restrain unwise expansion.
5. It provides a unified plan of operation—a financial working plan that, as every executive knows, is of the utmost value and importance to any enterprise.

Ice Cream Production in 1928

The United States Bureau of Agricultural Economics has issued a report showing the total production of ice cream in 1928. At the time of tabulation, early in April, 1945 manufacturing firms in the United States had made scheduled reports. The figures however should not be taken as representing the total production.

The aggregate figures show a total of 117,849,680 gallons. These figures being reported by manufacturers also show that 158,449,123 gallons were sold at wholesale while 13,601,969 gallons were sold by the manufacturers at retail.

NO. 5 OF A SERIES OF AMCO-FED HERDS



Two of Mr. Rauch's good ones. The cow on the left is milking 50 lbs. per day, nine months after freshening. The cow on the right has made over 15,000 lbs. in the past seven months and is now giving 60 lbs. per day.

Pasture is only ROUGHAGE

PASTURE grass is the part of spring and summer dairy rations which corresponds to silage and hay. This grass provides succulence, bulk, and a little more protein. It is composed largely of water, and stimulates milk production, but does not furnish enough digestible nutrients to hold up the flow.

Grain must be fed in spring and summer if high production is to be maintained. For that

is the only way you can get into your cows enough digestible material to produce a large flow of milk after the first flush of pasture is over.

Mr. John M. Rauch of McClure, Pa., feeds Amco 20% Dairy Ration, which contains the right amount of protein to supplement either pasture or a good grade of legume hay.

McClure, Pa.,
March 20, 1929
American Milling Company,
Peoria, Ill.
Gentlemen:

There is one thing I like particularly about the Amco Open Formula Feeds, viz.—that I can choose the mixture best suited to my roughage.

I have been using Amco Feeds for three or four years and at present am feeding Amco 20% Flexible Dairy Ration. I am getting good results.

I love good cows and have only Registered Purebred Holsteins, and I think I have some good ones.

Amco Open Formula Feeds will permit a good cow to show what she can do.

Yours very truly,
John M. Rauch

DIVISION OFFICE:
MUNCY, PA.

AMCO
FEED MIXING SERVICE
AMERICAN MILLING COMPANY
EXECUTIVE OFFICES: PEORIA, ILL.

Plants at: Peoria, Ill.; Omaha, Neb.; Owensboro, Ky.
Alfalfa Plants at: Powell, Garland, and Worland, Wyo.

A TUBULAR High Pressure MILK COOLER
Reasonably Priced

Rolls-Royce quality at Ford prices! A genuine tubular, high pressure milk cooler of the type endorsed by all authorities. Easily cleaned. Sanitary. Built of copper and bronze throughout. Nothing to rust or wear out. Made in two sizes.

ORIOLE MILK COOLER

ORIOLE coolers are made in two sizes. Size A cools 35 gallons of milk an hour and is priced at \$34.50. Size B cools 50 gallons an hour and is priced at \$40.50. Both sizes consist of 1 1/2" diameter seamless copper tubes spaced so that cleaning between them is easy. A lip, formed into the tubes when made, runs along their under side, providing a guide for the flow of milk from one tube to the next. The water flows through these V shaped flanges as well as the balance of the tube interior so that all possible cooling surface is utilized. This space is "dead metal" on other tubular or corrugated coolers.

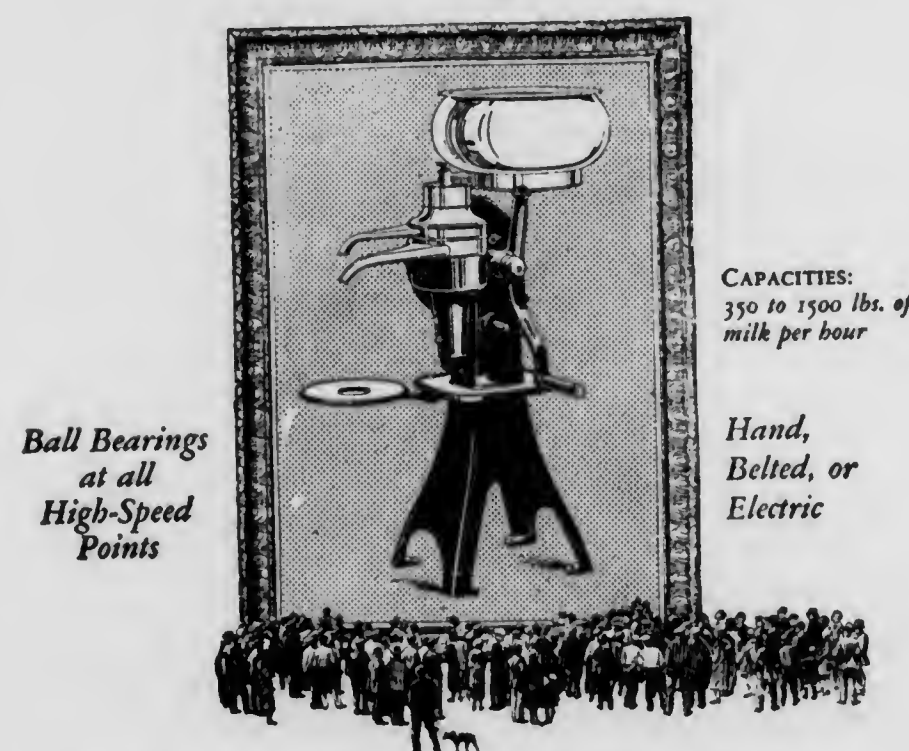
Troughs are removable without tools. Reservoir, troughs, and all other parts have only smooth, round, tinned surfaces—no square corners.

The Oriole is guaranteed without restriction against imperfect workmanship or materials and to withstand without leakage a pressure of 75 pounds to the square inch. Ask us for FREE Bulletin No. 90.

CHERRY-BURRELL CORPORATION
2324 Market St., Philadelphia
Russell and Ostend Sts., Baltimore
1139 Penn Ave., Pittsburgh

54 West Maple, Columbus
1615 East 25th St., Cleveland
345 West Jefferson St., Syracuse

Now We Can Show You the NEW McCormick-Deering Cream Separator



Ball Bearings at all High-Speed Points

CAPACITY: 350 to 1500 lbs. of milk per hour

Hand, Belted, or Electric

YOU may have seen the Harvester Company's announcement of their New McCormick-Deering Cream Separator. We now have the first of them in our store.

The New McCormick-Deering has many remarkable improvements. The machine now has high-grade ball-bearing equipment at all high-speed points. Its operation is the last word in light-running ease and durability.

A completely new bowl of skillful design, with a skim-milk-regulating screw controlling

the cream density, combines with other features to produce what we believe to be the cleanest-skimming machine on the market. Splash lubrication that completely lubricates. A supply can with outside faucet. Every provision for sanitation and easy cleaning.

The six sizes of the New McCormick-Deering fit every need—from one cow to a hundred. You are bound to like this new machine. We will demonstrate here or on your farm with no obligation to you.

Feed Grain With Pasture

High-producing cows need grain even when on good pasture. Early pasture grass is high in protein, so grain mixtures should not contain more than 15 percent protein for best results.

Plain Logic

First Darcy: "What fo' you name yo' baby 'Electricity, Mose?"
Second Darcy: "Well, mah name am Mose, and mah wife's name am Dinah, and if Dinahmose don't make electricity what does dey make?" —Open Road

Need Lower Farm Tax, Says Penn State Man

Revision of taxes to relieve farmers of the excessive tax burden on farm property in general and, especially, on farm real estate is pointed out as a distant need by Prof. F. P. Weaver, head of the Department of Agricultural Economics at the Pennsylvania State College.

No problem which confronts the farmer has so much ethical and economic justification for relief by legislation as the tax problem, the Penn State economist asserts. He declares that adjustments in bases for taxation to keep pace with changes in the types and sources of incomes of the people, like most economic adjustments, are at least one or two generations behind the changes to which they tend to conform. The general property tax, at one time the sole source of income to the ruling class, still constitutes too large a share of the source of all taxes, in his opinion.

"Not only is too large a share of all tax burdens resting upon general property but, because of administrative difficulties," Professor Weaver points out, "real estate bears an undue share of the general property tax."

In relation to the volume of business carried on, agriculture is outstanding among all modern occupations for the large amount of real estate that is used in this connection, Weaver explains. Farm surveys and farm accounts throughout the country show that the average farm turns its entire capital about once in six years. The farmers of Pennsylvania in 1925, with an invested capital of \$1,500,000,000, of which almost \$1,250,000,000 was in lands and buildings, produced \$318,700,000 worth of products. All products were valued at only a trifle more than 20 per cent of the invested capital and at just about one-fourth of the estimated value of land and buildings on Pennsylvania farms.

Co-operative Purchasing Increasing

Collective purchasing on the part of farmers cooperative business associations is increasing. Farm supplies and farm-home necessities have been bought collectively by our farmers for nearly a hundred years, but never before on the scale that now prevails.

Not only has the buying of supplies and necessities through local associations increased materially during recent years, but the large-scale purchasing association has developed beyond the expectations of its most optimistic advocates. Furthermore, this type of cooperative enterprise is continuing to develop. New organizations are being planned to serve the farmers of large areas, such as whole states, or producing regions including portions of several states.

Some of these associations are independent enterprises, others are subsidiaries of state farm bureaus or state farmers' unions, while others are affiliated with the larger cooperative marketing associations.

Twenty-odd of these big purchasing associations transacted business in 1927 amounting to about \$60,000,000. The same associations in 1928 handled business that approached closely to the \$100,000,000 mark, with indications that the 1929 figures will go far beyond those of the past year.

American Institute of Co-operation

The fifth summer session of the American Institute of Co-operation will be held on the campus of the Louisiana State University, at Baton Rouge, Louisiana, beginning July 29th, 1929.

During the first two weeks of the institute trade conferences of leading co-operative groups will be held on problems affecting their respective industries. Special classes will be conducted through the four-week period. A list of nearly 100 authorities are arranging to be present to make addresses and participate in the discussions.

This year's Institute will feature the questions of membership relations, financing and management of co-operatives.

During the Institute a meeting of co-operative leaders will be held when they will formally ratify a plan for the creation of the National Chamber of Agricultural Co-operatives. The agency is to be an overhead body which will speak for all member co-operatives on legislative questions and other questions of public interest.

Attendance is expected from practically every State, from Canada and from a number of foreign countries.

Farm Wages and Labor Supply in New Jersey

Statistics available from the various Agricultural Departments of the State of New Jersey—released April 15th, indicate that the present average prices of farm labor are estimated as follows: By the month with board, \$4900; by the month without board, \$73.00; by the day with board \$2.55; without board, \$3.40. These figures compare with, \$45.00; \$70.00; \$2.80 and \$3.40, the average prices paid one year ago.

The present supply of farm labor is estimated at 97 per cent of a normal and the demand at 92 per cent of a normal. This results in a potential supply of farm labor of 105.4 per cent of a normal, as compared with 101 per cent, the potential one year ago.

Report of the Quality Control Department Philadelphia Inter-State Dairy Council

The following is a report of the work done by the Quality Control Department of the Dairy Council, for the month of March, 1929.

No. Inspections Made.....	2114
Sediment Tests.....	2467
No. Permanent Permits Issued.....	93
No. Temporary Permits Issued.....	98
No. Meetings Held.....	5
Attendance.....	437
Reels Movies Shown.....	2
No. Man Days.....	
Fairs and Exhibits.....	
Bacteria Tests Made (Plants).....	51
No. Miles Traveled.....	19243

During the month 9 dairies were discontinued from selling for failure to comply with the regulations—12 dairies were reinstated before the month was up.

To date 128,518 farm inspections have been made.

The 18th cooperative Public Sale of Bradford County Registered Holsteins is to be held in Troy, Pennsylvania, on Wednesday, May 22nd, 1929.

With its six Cow Testing Associations in operation, its ten year-old Bull Association and other activities great advance have been made in the quality of its Holstein cattle. A large number of the animals in the consignment sale are reported to have high cow testing association records.

All the cattle in the sale have been tuberculin tested and most of them come from fully accredited Herds.

18th CO-OP. PUBLIC SALE BRADFORD COUNTY REGISTERED HOLSTEINS Sale Pavilion, Troy, Pa., Wednesday, May 22, 1929

40 Cows fresh or due soon, 12 Heifer Calves and Yearlings, 8 Bulls

SPECIAL FEATURES OF THIS SALE:

1 son and 2 daughters of Berylwood Prince Aggie Chicago, the 1147 pound and \$3,100 son of Berylwood Prince Aggie, the famous \$125,000 sire.
A Show Cow due at sale time, daughter of BradCo Holingen Pontiac, the 1077 pound Bull Association Sire.
A Yearling daughter of King Fiehe, 36th, from a 29 pound 2yr. old daughter of Champion Echo Sylvia Pontiac.
A 2 1/2 year old cow of good shape type.
2 two-year olds due at sale time, daughters of Echo Alcartra Sylvia Lad, whose dam last year made around 900 lbs. butter.
An October bull bred by a son of Bradford County's first 30 pound cow, Wilawana Pearl, and from a dam who produced in C. T. A. work 17,161 lbs. milk and 730 lbs. butter on 2 milkings per day.

Many of the consignment have creditable C. T. A. records.
All cattle Federal Tuberculin tested, most of them fully accredited. 60-day Retest Privilege.

For Catalogue Apply to
R. H. FLEMING 315 Main Street TOWANDA, PA.

GUERNSEY AUCTION SALE

60—Blood Tested Guernseys—60

The Chester County Guernsey Breeders' Association will hold its Second Annual Sale at Sunny Ridge Farms, Chadds Ford Junction, Pa., on Wednesday, May 29th, 1929, at 12 noon (Eastern Standard Time)

The animals in this consignment are from the best herds in Chester County and include a selection from "Bredalvik Farms," Wilmington, Delaware.

There will be 30 mature cows, some of which have A. R. records, 25 open and bred heifers and 7 young bulls of excellent breeding.

These cattle represent some of the best families of the breed. They are healthy, being negative to the standard tests for T. B., and abortion and the owners stand back of every statement made.

It will be an excellent opportunity to secure healthy animals of the best breeding. Plan to attend the sale. Write for catalogue.

WALTER F. ANDREWS, M. M. HOLLINGWORTH,
Beach City, Ohio, Landenberg, Pa.
Auctioneer, Chairman Sale Committee.

J. B. LINGLE, Manager Bredalvik Farms, Wilmington, Delaware.

HOLSTEINS FOR PROFIT!
More Dollars per Cow per Year
More Milk Increased milk yield per cow, according to reliable authorities, results in larger profits. Holsteins produce the most milk and butterfat. That's why the majority of dairymen milk Holsteins.

The HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA
230 East Ohio Street, Chicago, Illinois

BUY EASTERN QUALITY-PLUS BABY CHICKS

BIG HATCHES	Per 50	100	500	1000
Large Barron English S. C. White Leghorns	\$7	\$13	\$63	\$125
Silver Laced Wyandotters, Barred Rocks, S. C. Reds	\$8	\$15	\$72	\$140
Mammoth Light Brahmas	\$9	\$17	\$86	

Sent parcel post prepaid, 100% live delivery guaranteed. 10% Books Order.

SHERIDAN POULTRY FARMS, Catalog Free BOX R SHERIDAN, PA.

BABY CHICKS

Order now for May delivery.
Rhode Island Red Chicks, \$15 per 100;
Barred Rocks, \$15 per 100; White Leghorn Chicks, \$12 per 100. Good straight stock, guaranteed delivery.
Satterthwaite's Seed Store
16 N. WARREN STREET
TRENTON, N. J.
Phone 8278

BARRON COUNTY DAIRY COWS

Modified Accredited Area
HOLSTEINS—GUERNSEYS—JERSEYS
We have for sale at all times, purebred and high grade cows of all breeds. You buy direct from the farmer. Driving and testing free. Fine Sales Pavilion for assembling.
BARRON COUNTY HOLSTEIN BREEDERS' ASSOCIATION
Incorporated Co-operative
F. J. KRAHENBUHL, Secretary, Barron, Wis.

The "E-Z" Shock Absorbing Seat Spring

will make the farm machines TRACTORS, etc., ride EASY. It absorbs the Side-shocks that are so injurious to the Spine and nervous system. Fits any machine. Satisfaction guaranteed or money refunded. Hundreds of unsolicited testimonials from pleased users. Delivered by parcel post. Send for circular.
GEO. J. KRUM, Old Chatham, N. Y.
Agents Wanted

CHICKS

S. C. White Leghorns—English	per 100
Strain.....	\$10.00
Barred Rocks.....	12.00
White Rocks.....	13.00
S. C. Reds.....	13.00
Broilers.....	10.00
Mixed.....	10.00

My parent stock is selected and culled for heavy layers. E. B. Thompson and Parks Strain. All good chicks. 100% live delivered. Special Price on Larger Orders. Circular Free.
JACOB NIEMOND, Penna.
Box M, McAllisterville.

Find 77 Food Violations in Month

One of the most common, recent violations of the Pennsylvania Pure Food Law has been the artificial coloring of food products.

During March, a total of 77 prosecutions were ordered, and of this number 24 were for the use of artificial coloring. The food products so adulterated were catsup, imitation jelly used in jelly doughnuts, fish, mayonnaise, pie filler, jelly used in jelly rolls, bologna and weiners.

In commenting on this condition, Director Kellogg points out that the pure food laws make clear that any article of food is considered adulterated if colored so as to mislead or deceive the purchaser or if it contains a chemical for coloring purposes which is injurious to health.

Fewer Horses in Pennsylvania

The number of farm horses in Pennsylvania continues to decrease. Figures compiled by the Penna. Department of Statistics indicate a decrease of about 10,000 on January 1st, 1929, as compared to one year ago.

While the decrease is general throughout Pennsylvania, the rate of decrease in the State is less than that of the United States, as a whole. An increase of \$4 per head in value was reported.

The number of mules remains about the same as a year ago. The average value per head increased \$6.00.

Berks, Bradford, Bucks, Chester, Crawford, Franklin, Lancaster and York Counties lead in the numbers of horses reported. They all range above 10,000 with Lancaster County high with 17,290 head.

Grow Healthy Chicks On Over 1800 Farms

Poultrymen in 50 counties are engaged in growing healthy chicks in demonstrations under the supervision of Pennsylvania State College Poultry Extension specialists, according to John Vandervort, in charge of the service. His associates are Harry H. Kauffman, Carl O. Dossin, and Donald C. Henderson.

Nearly a million chicks are being grown by the 1800 co-operators in the project. Many other poultrymen are following the same practices as a result of meetings held during the past winter. Some of these are operating on a large scale.

Financial Primer

Five year-old Mary was teaching three-year-old Audrey the value of different coins:

"That's a dime; it will buy lots of candy. That's a nickel; it will buy an ice-cream cone. That's a penny; it's only good for Sunday-school!"

Less work needed to clean cans

THE work of cleaning milk cans can be done more safely, rapidly, thoroughly and economically with Oakite.

This economical, sudless cleaner loosens grease, dried-on milk and dirt rapidly and completely—rinsing leaves all equipment clean, film-free and sweet smelling. No grit, no abrasive—nothing to injure metal surfaces. Oakite does the work—little if any hand brushing or washing are needed.

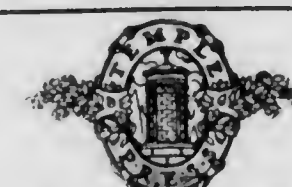
You can get Oakite through our nearby Service Man. A line to us will put him in touch with you.

Oakite Service Men, cleaning specialists, are located in the leading industrial centers of the U. S. and Canada.

Manufactured only by

OAKITE PRODUCTS, INC.
36H Thames St. NEW YORK CITY

OAKITE
Industrial Cleaning Materials and Methods



Let Us Design Your Stationery

Horace F. Temple
Printer

Bell Phone No. 1
WEST CHESTER, PA.

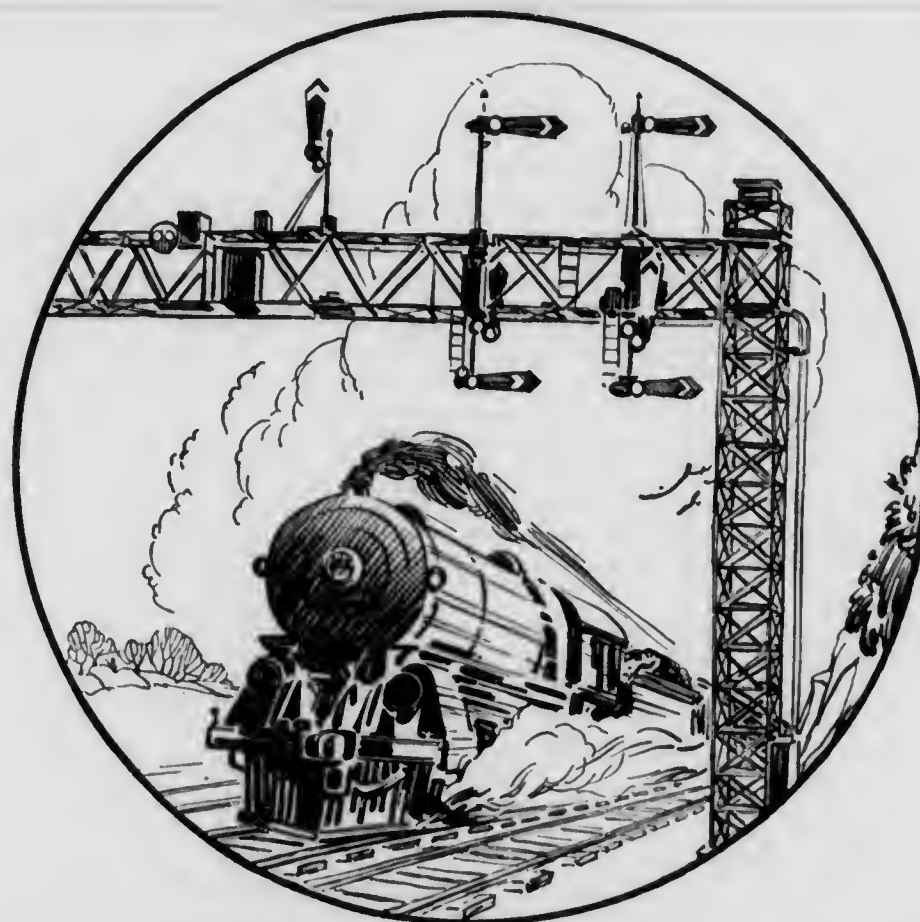
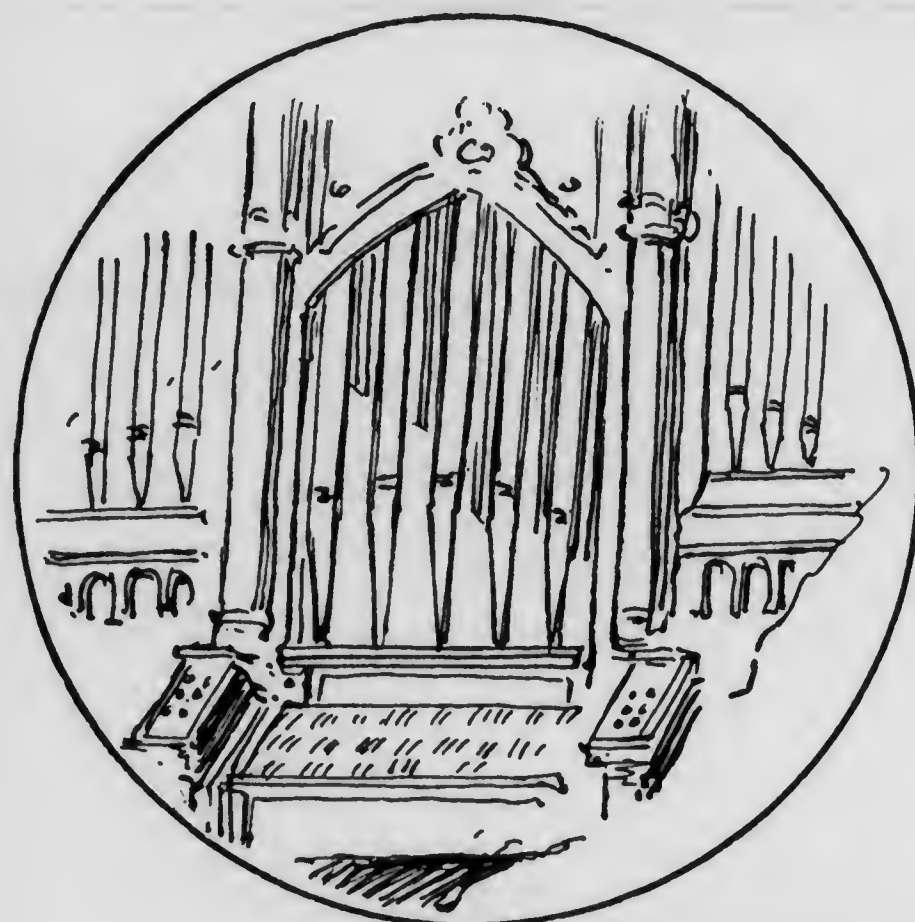
Quietness and convenience in Philadelphia's Newest Hotel

The Robert Morris

17th & ARCH STREETS
Rooms all outside and with bath. All beds equipped with box springs and Nachman inner hair spring mattresses.
RADIO IN EVERY ROOM
Single rooms.... \$3.00 \$3.50 \$4.00
Double rooms.... 4.50 5.00 6.00
LUNCHEON .60 and .75
DINNER \$1.00, \$1.15, \$1.50

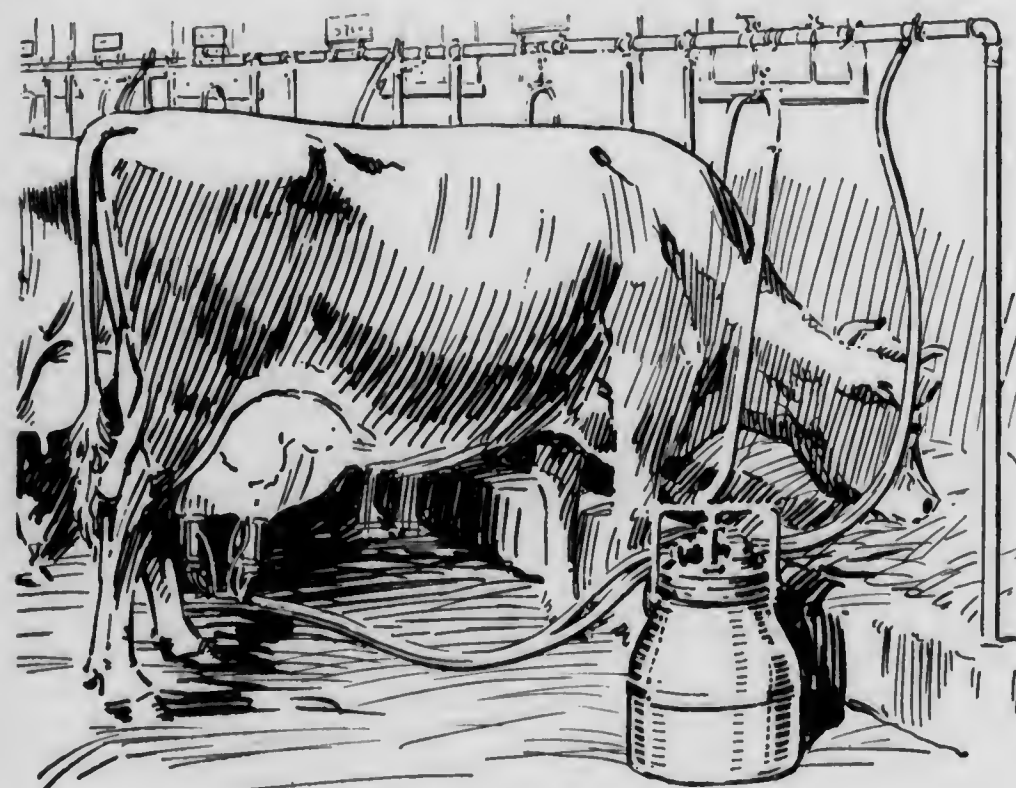
Feed only whole sweet milk for at least the first two or three weeks of a calf's life.

What Have Pipe Organs Or Railroad Signals



To Do With — De Laval Magnetic Milkers?

MAGNETIC force, which is used to control the pulsations in the new De Laval Magnetic Milker, is also used extensively for many other purposes; wherever efficiency, lightning speed and dependability are required. Magnetic force is employed in the marvelous pipe organs to control hundreds of valves; in the operation



Send coupon for full information - - -
Either the De Laval Magnetic or Utility
Milkers are sold on such easy terms they
pay for themselves - - Ask for information
on De Laval Separators. - - -

of railway signals, switches; in your telephone, radio, and for many other uses.

In the De Laval Magnetic Milker, the use of magnetic force provides the most dependable, most effective and uniform pulsation control ever devised. In addition, the Magnetic has 14 other exclusive features, making it the world's best milker. It has all the good features ever developed in De Laval Milkers but requires much less power, is easier to handle and install. Made in a variety of sizes. Can be operated with engine or motor.

A De Laval Magnetic will milk cows better, save you more time and give every dairyman greater profit and satisfaction than anything he can buy.

Also the De Laval Utility Milker —For the Low Price Field

The best milker of its kind. Units can be used on any single pipe line milker installation. Made in one and two unit sizes for milking one to 20 cows. Send coupon for information.

The De Laval Separator Co., Dept. 9838
New York, 165 Broadway
Chicago, 600 Jackson Blvd.
San Francisco, 61 Beale St.

Please send me, without obligation, ☐ Milker
full information on ☐ Separator ☐ Check which

Name

Town

State

R. F. D.

No. Cows

Milk Producers Review

ISSUED MONTHLY IN THE INTEREST OF THE DAIRY FARMER BY THE INTER-STATE MILK PRODUCERS ASSOCIATION, Inc.

Vol. X

West Chester, Pa., and Philad

May 1929

No. 2

The Holstein-Friesian Association Holds 44th Annual Convention in Philadelphia

A record attendance marked the annual convention of the Holstein-Friesian Association of America which was held in Philadelphia during the week of June 3rd, 1929. A total attendance of over 1200 was reported, a larger number than has attended any convention in the last six years. Of this number nearly 225 represented the official delegates, from practically all of the states in the Union, the officers, directors and extension men of the organization.

interesting address on "Breed Improvement Plan," in which he stressed the necessity of raising herd averages rather than that of individual cows. The herd test method, he believed, was the most forward step that has been taken by any breed associations.

H. W. Norton, Jr., Superintendent of Advanced Registry, Holstein-Friesian Association of America, made a report of the work of that department for the past year. He touched upon the various

development of this work in the future.

A. J. Glover, Editor of Hoards Dairyman, supported the movement of the association in its herd testing program. Better and better cows should be our slogan. He also supported the tuberculin testing of dairy cattle and advised caution in the development of plans for the proper handling of contagious abortion testing work, after a definite study of the development of methods and procedure for the testing of cows so affected.

drink milk? We were informed that on this occasion it required over 1200 half-pint bottles of high grade Holstein milk to satisfy the demands of the visitors.

Early in the evening the party proceeded by auto bus to Longwood Gardens, the home of Pierre S. duPont, where the mammoth conservatories and gardens were visited and enjoyed. Later in the evening there was an illuminated fountain display, which was said to be the largest and most elaborate of any in the country.



Purebred Holstein-Friesian Herd of H. D. Allebach, Trappe, Pa., President of the Pennsylvania Federation of Holstein-Friesian Clubs. This herd has been free of tuberculosis for ten years and has recently passed clean the test for contagious abortion.

The sessions of the convention were held at the Benjamin Franklin Hotel. Monday's sessions were devoted to committee meetings, principally in connection with Finance, Extension Service, Qualifications of Judges and Fair Prices.

Tuesday's Sessions

The day's sessions opened with a meeting of the Board of Directors which was followed by an open meeting of the convention. This session was in the nature of an open forum and many features of interest to the Holstein breeder were discussed.

At this session Prof. O. E. Reed, Bureau of Dairying, United States Department of Agriculture, Washington, D. C., made an

activities of the Advanced Registry Department and touched particularly upon the classifications of herds and sires under the association plan. There are 35 herds now classified. The classifications are based upon the rating of individual cows, and in the case of bulls on the records of their daughters.

Earl J. Cooper, Director of Extension Service, followed with an address on "Our Extension Service." Mr. Cooper outlined the year's accomplishments of his department based upon a comprehensive study of the work to be done, including publicity programs, literature, shows and fairs, Boys and Girls Calf Club work, Service to Breeders and miscellaneous activities, etc., together with the proposed

Winterthur Trip

As the guests of Mr. H. F. duPont and Mr. Pierre S. duPont, the members of the association and their guests visited the Winterthur Farms of the former and the Longwood Gardens of the latter host. Over 1200 members and their guests left Philadelphia on the steam boat City of Chester, for Wilmington, Delaware.

Here they were taken by automobile bus to Winterthur Farm, where the outstanding Holsteins of Mr. duPont, under the direction of J. R. Danks, were inspected. This herd which numbers over 300 head is both free from tuberculosis and contagious abortion.

Supper was served at Winterthur Farms—and, can the Holstein dairyman

The guests then returned to Wilmington by bus and returned to Philadelphia by steamboat.

Wednesday's Session

The general business session of the convention was held on Wednesday, Hon. Frank O. Lowden, president, presiding.

Following the call to order, an address of welcome was made by the Hon. H. A. Mackey, Mayor of Philadelphia.

Following a roll call of the delegates the convention proceeded with the general business of the meeting.

Reports of the auditors, the treasurer, the secretary, of various departmental

(Continued on page 6)

Have You Ever Seen Bacteria in Milk?

By FLOYD EALY, Quality Control Department, Philadelphia Dairy Council

We have all heard and read a great deal about bacteria, but it is only by the use of a microscope that they can be seen. Bacteria are very small plants that are capable of very rapid growth under proper conditions of food, moisture and temperature. Like other plants, bacteria grow most rapidly where there is plenty of food, moisture, and a temperature above 60 degrees Fahrenheit. Bacteria are widely distributed in air, water, soil, and even in our digestive system where they aid in the assimilation of our food.

There are many types of bacteria, some of which are harmful, such as those that cause disease in man or in animals, and are transmitted through the air, water, or milk. Others are absolutely essential to man's existence in the world. Plant food

plate about four inches in diameter and two inches high. Then a solution of beef broth or melted gelatin is added to this dish. Bacteria grow very rapidly in this material. These dishes are then put

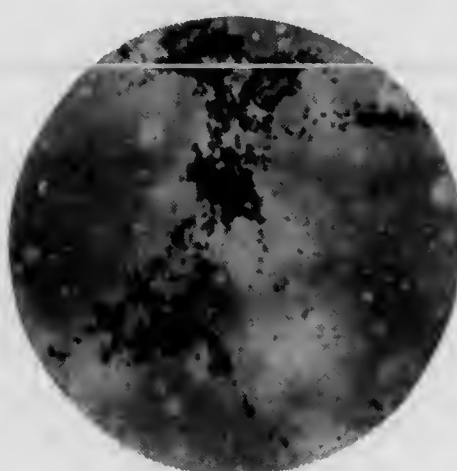
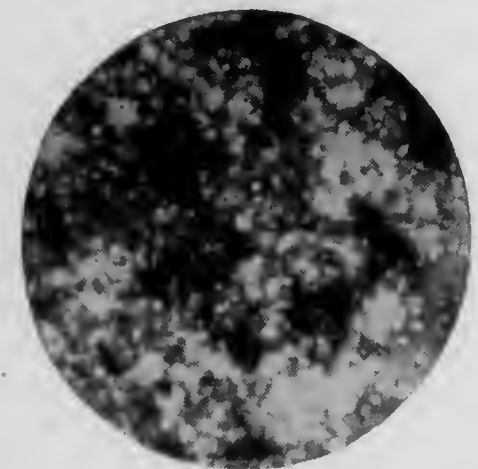


Figure I

The light yellow spots shown where the butterfat globules were located. Large blue spots in the smear indicate udder cells which are given off with all milk in the process of milking. Dust or dirt that may have gotten on the slide during its preparation show as large black, brown or green spots and can be easily told from bacteria.

This shows bacteria in milk caused by improperly cleansed or poorly constructed utensils. This type of bacteria are large, round, and grow in clumps.



This is a sample of high grade milk under the microscope. The yellow spots are not bacteria, but the light shining through the fat globules were located. The large blue spots are udder cells.

in the soil could not be used, and manure and fertilizers would not become available for plant use if it were not for the action of these tiny plants in the soil. If plants could not grow both animals and humans would soon perish.

Between the extremes of disease-bearing organisms on the one hand and those that are essential to all life, we find many types of bacteria especially those that cause food to spoil and milk to sour, or have a bad odor. It is with this latter type that we shall deal in this discussion.

The plate count has been in common use to determine the bacteria count of milk for many years. In this method, a well-mixed sample is taken from the weigh tank, iced thoroughly, and sent to the laboratory. Here it is diluted with sterile water in the proportion of one to a thousand, or one to ten thousand, depending upon the quality of the milk to be examined. A small amount of this dilution is then transferred to a circular dish or

in an incubator at body temperature for two days. Each organism grows so rapidly that it forms a clump or colony which can be seen with the naked eye. Due to the long period of incubation it is essential that all pipettes, tubes, dishes, water, etc., be absolutely sterile. After incubation the number of colonies is multiplied by the dilution and the result is the bacteria count. Thus, if twenty colonies were seen and the dilution was 1 to 1000, the count would be 20,000. For this method a large amount of equipment is needed and a long time has elapsed before the results are secured.

To overcome these objections, the direct microscopic test was devised by Dr. Breed at N. Y. Agric. Expt. Station, at Geneva, N. Y. In this method, one-sixth of a drop of milk is taken from the weigh tank with a pipette that has a hair-like opening through its center. This milk is spread evenly over one square centimeter of space on a glass slide. This slide will hold sixteen samples of milk and is etched at the top and bottom where the patrons' number can be written. This slide is dried on a can of hot water or over an electric light bulb at once. As soon as the moisture is evaporated, all bacteria are killed. This eliminates the necessity of using sterile slides and pipettes, as very little growth can take place before the smear is dry. These smears can be made as rapidly as the milk is dumped at the receiving stations.

Dr. Breed's method of staining the smear is as follows: It is first dipped in xyol

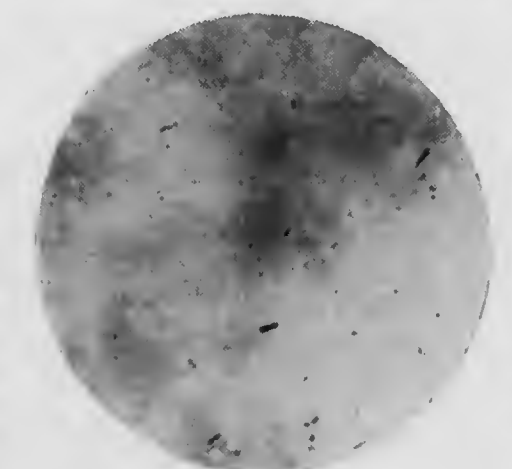


Figure II

Bacteria in milk that has been improperly cooled. Notice the small organisms growing in pairs or short chains.

In Figure II, we see large clumps of bacteria of various shapes.

Figure II
Dr. Breed in Circular No. 93, of N. Y. Agric. Expt. Station tells us that these bacteria come from improperly cleansed or poorly constructed utensils, such as pails, cans, strainers, or milking machines. All utensils should be rinsed at once after use, washed with hot water, washing powder, and a brush, sterilized with boiling water or steam and inverted to air and dry. Utensils containing cracks, or open seams should be soldered or discarded. Bacteria of the clumped type cause putrid, unpleasant odors in milk and also shorten the length of time that it will keep sweet.

In Figure II, we see very small organisms caused by poor cooling.

Figure III
These bacteria grow as pairs or short chains. They cause the milk sugar in milk to be changed to lactic acid which causes milk to sour. This type of bacteria double in number every one-half hour at

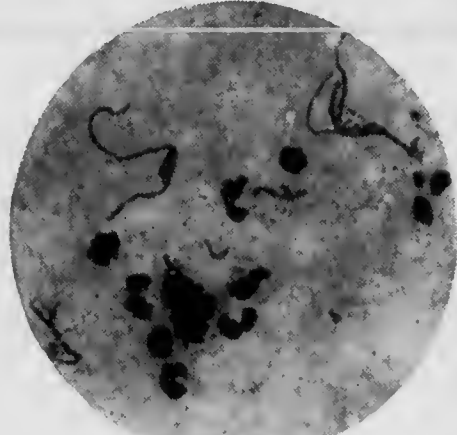


Figure IV

Milk from a cow with an infected udder. These small bead-like organisms grow in long, winding chains.

sixty-five degrees to seventy degrees Fahrenheit. Thus we see the necessity of prompt cooling of milk. Milk as drawn from healthy cows contain a few organisms, more get in the milk by the process of milking, but the majority of high counts are caused by high temperatures. That is shown by the fact that bacteria counts are much higher in summer than in winter.

Therefore dairymen should cool milk in a tank of fresh cold water at once after milking. Be sure that the water is above the level of the milk in the can. In hot weather, water in the tank should be changed for the second time before going to bed.

In Figure IV, we see milk from a cow with garget.

Figure IV
This type of organism, as described by Dr. Breed grows in long winding chains associated with a very large number of udder cells and blood corpuscles. These bacteria can often be noticed a few days before the milk becomes stringy. Cows that are almost dry or in the advanced stages of lactation often show this condition and should be turned dry.

In conclusion, Circular No. 93, of the New York Agricultural Experiment Stations, stresses the fact that to produce clean milk of a low bacteria count:—

1. The milk must be from clean, healthy cows.
2. The milk must be kept free from dirt and dust.
3. All utensils must be thoroughly washed and sterilized.
4. Proper cooling and storage are essential.

441,270,000 Gallons Milk Produced on State's Farms

Milk production in Pennsylvania in 1928 is estimated at 441,270,000 gallons and valued at \$112,254,920, according to the Bureau of Statistics, Pennsylvania Department of Agriculture. This is an increase in production of approximately 7,370,000 gallons over the 1927 total. The greater production has been accomplished without an increase in number of dairy cows, the average production per cow being approximately 8 gallons more than in 1927. Practically the same amount of milk was produced by the dairy herds in the Commonwealth in 1928 as in 1924, with 18,000 fewer cows.

Due to better breeding, elimination of tuberculosis, better feeding and improved management generally, the average annual milk production per cow is now approximately 115 gallons more than 40 years ago. Leading counties in milk production in

1928 were Lancaster, Bradford, Chester, Susquehanna and Crawford.

The estimated amount of milk produced on farms and the approximate value in 1928 in the Inter-State Milk Producers' Association Territory are given by counties as follows:

COUNTY	Production 1928 (gallons)	Value 1928 (dollars)
Bedford	6,910,850	\$2,004,150
Berk	12,944,350	3,365,530
Blair	4,842,200	1,309,280
Bucks	12,243,800	3,555,000
Chester	21,132,200	6,762,300
Cumbe	9,440,850	2,076,950
Dauphin	6,212,600	1,428,900
Delaware	3,021,300	876,180
Franklin	8,249,100	2,062,320
Fulton	1,354,950	365,840
Huntingdon	3,512,500	948,380
Junata	3,141,400	722,520
Lancaster	24,190,850	6,047,710
Lebanon	6,781,100	1,763,090
Lehigh	4,128,900	1,032,220
Mifflin	3,488,600	872,150
Montgomery	11,156,200	2,900,610
Northampton	5,169,100	1,240,580
Philadelphia	547,700	175,260
Schuylkill	3,175,000	1,016,000
York	15,014,000	3,753,500
Total	166,657,750	\$41,279,201

A Study of the Tariff and Farm Relief

By R. W. BALDERSTON, Secretary, Inter-State Milk Producers' Association

While Congress is struggling with the problem of enacting a new tariff law to take the place of the Tariff Act of 1922, President Hoover has, under the flexible provisions of the present tariff act, ordered the import duties on milk to be increased from 2 1/2 cents to 3 3/4 cents per gallon, and the duty on cream to be increased from 20 cents to 30 cents per gallon. It will be noted that these increases are of 50% each, being the maximum amount allowable under the provisions of the Act.

The new rates will become effective on June 14th. While these rates are not as

high as those proposed by the Ways and Means Committee in the new Tariff Act they will be somewhat helpful during the present summer, in stabilizing the cream market in the great consuming centers of the East.

This action closes a tariff case handled by the U. S. Tariff Commission under the terms of the flexible provision of the Act of 1922. The National Co-operative Milk Producers' Federation has been active in this case and the order of the President increasing the duty constitutes another victory for the member organizations working through the national body.

As finally passed by the House of Representatives, the new tariff bill proposes new duties on milk at 5 cents per gallon and cream at 48 cents per gallon. Other rates on dairy products proposed by the House include 14 cents on butter, 14 cents on unsweetened condensed milk, and 2 1/4 cents on sweetened condensed milk. The rate placed on oleomargarine was the same as that of butter.

The rate on whole milk powder was raised slightly in the proposed bill but was not to the point that was urged by the dairy interests. The rate proposed is 4 3/4 cents while the dairy interests want 10 cents.

The rate on skimmed milk powder was increased from 1 1/2 cents to 2 1/2 cents but

the rate remains unchanged at 2 1/2 cents per pound.

The bill as passed provides a tariff of 7 cents per pound on all cheeses. This is being vigorously objected to by the dairy interests because while perhaps fairly adequate for the American or cheddar type of cheese, it is claimed that it is entirely insufficient to protect the rapidly growing Swiss cheese industry in New York and Wisconsin.

On July 8th, 1927, the President, under the flexible provisions of the Tariff Act increased the tariff on Swiss cheese to

organization based its requests before the Ways and Means Committee, and will again represent the organized American dairy farmers before the Senate Committee on Finance in its hearing on the bill.

The dairy industry, while primarily interested in adequate tariffs on dairy products and oleomargarine and other dairy products substitutes, has a very direct interest in securing adequate tariff duties on vegetable oils. Except in a very few unimportant instances, the Committee on Ways and Means failed, in framing its bill, to make provision to give the

Filipinos their independence, which some of them are so urgently demanding. With independence they would automatically come under the operation of the tariff laws.

Without complete analysis it is difficult to state whether the new tariff law is as advantageous to the farmer as it is to the manufacturer. Undoubtedly some farm product rates are well advanced. Such products as casein, tapioca and sage starch have received no increased protection.

The Farm Relief Bill

As we go to press the Senate and the House of Representatives are in complete lack of accord as to what type of measure to enact. The Senate clings to the Debuture Plan proposed and urged by the National Grange, but the House refuses to accept it. In other respects, the two bills, that of the House, and that of the Senate are quite similar. Both provide for a federal farm board. Both provide for a stabilization corporation set up for each product, where the producers thereof through a commodity committee recommended that such corporation be

Comparison of Duties on Dairy Products at Present, in Proposed Bill and Requested by The National Co-operative Milk Producers' Federation

PARAGRAPH NO.	ARTICLES AND MATERIALS COVERED	PAYMENT RATES IN ACT OF 1922	PROPOSED RATES IN NEW HOUSE BILL	RATES REQUESTED BY FEDERATION
707 (a)	Milk, fresh or sour	2 1/2 cents per gal. on fresh milk, 1 cent per gal. on sour milk	5 cents per gal. fresh or sour	8 cents per gal. on fresh or sour but not less than 40% ad valorem
(b)	Skimmed milk and buttermilk	Skimmed milk, no duty, 1 cent per gal. on buttermilk	1 1/2 cents per gallon	2 cents per gal. on both but not less than 40% ad valorem
(c)	Cream	20 cents per gallon	48 cents per gallon	60 cents per gallon but not less than 40% ad valorem
(d)	Provision covering fresh or sour milk high in butterfat	If more than 7% butterfat, dutiable as cream	Same as at present	If more than 6% butterfat dutiable as cream at 60 cents per gallon
(e)	Cream containing more than 45% butterfat	Dutiable as butter	Same as at present	Dutiable as butter
708	Milk evaporated, unsweetened in hermetically sealed containers	1 cent per pound	1 1/2 cents per pound	3 cents per pound but not less than 40% ad valorem
	Milk, condensed, sweetened in hermetically sealed containers	1 1/2 cents per pound	2 1/2 cents per pound	4 1/2 cents per pound but not less than 40% ad valorem
	All other condensed or evaporated	1 3/4 cents per pound	2 cents per pound	3 cents per pound but not less than 40% ad valorem
	Whole Milk Powder	3 cents per pound	10 1/2 cents per pound	14 cents per pound but not less than 40% ad valorem
	Cream Powder	7 cents per pound	10 1/2 cents per pound	14 cents per pound but not less than 40% ad valorem
	Skimmed Milk Powder	1 1/2 cents per pound	2 1/2 cents per pound	4 cents per pound but not less than 60% ad valorem
709	Malted milk and compounds or mixtures of or substitutes for milk or cream	20% ad valorem	14 cents per pound	15 cents per pound but not less than 45% ad valorem
710	Oleomargarine and other butter substitutes	8 cents per lb., changed on April 1, 1926, under Sec. 315, to 12 cents per pound	12 cents per pound	15 cents per pound but not less than 45% ad valorem
	Cheese and substitutes thereof	5 cents per pound but not less than 25% ad valorem	7 cents per pound but not less than 35% ad valorem	American or Cheddar type, 8 cents per pound but not less than 40% ad valorem
		On July 8, 1927, under Sec. 315, Swiss or Emmentaler type increased to 7 1/2 cents per pound but not less than 37 1/2% ad valorem	Applies to all cheese	Swiss type: 12 cents per pound but not less than 40% ad valorem
				All other types, and all processed cheese, 15 cents per pound but not less than 40% ad valorem
				Cheese substitutes, compounds or mixtures thereof, by whatever process prepared, 15 cents per pound but not less than 40% ad valorem
				8 cents per pound but not less than 60% ad valorem

7 1/2 cents a pound, so that the House bill actually lowers the tariff on this type of cheese.

It is conceded by everyone that the Tariff Bill will be again the subject of thoroughgoing investigation by the Finance Committee of the Senate which is planning to spend several weeks on the job and will report back to the Senate which in turn, it is thought, will spend much time and care in considering the measure. Just when it will finally become a law, and in what form, it is impossible to say.

The Tariff Committee of the National Co-operative Milk Producers' Federation has prepared the material on which that

American producers of oils of vegetable and animal origin, the protection of the American tariff. The Committee took the position that since the very large proportion of vegetable oils come from the Philippines, and since the Philippines are a dependency of the United States, it was not possible to levy taxes on such imported oils as coconut oil.

Representatives of the American dairy farmers do not agree with either of these premises. They feel that it is perfectly fair to levy at least a part of the full tariff tax on Philippine imports just as is done in the case of Cuban sugar. There are some people who are stating that this would be an appropriate time to give the

set up. Both bills provide for a fund of \$500,000,000 to be used as a revolving fund and loaned to stabilization corporations for the purchase and holding of farm crops and to co-operative associations for the extension of their business.

It is thought by those familiar with the situation that except for the Debuture Plan the Congress would find no difficulty in composing the differences between the ideas of the House of Representatives and those of the Senate.

Government After Illegal Butter

During the last project year 62 consignments of butter aggregating nearly 114,000 pounds were seized in the Eastern Inspection District of the Food, Drug and Insecticide Administration according to W. R. M. Wharton, Chief of the District. In addition, 22 citations were issued to manufacturers of illegal butter prior to initiating prosecution action and 4 cases have already been transmitted to the Solicitors of the Department for court action. Warning was given on numerous additional minor violations by correspondence addressed to the offending manufacturers.

The principal violations discovered were low butter-fat content, excessive water and short weight. A number of lots were found to contain between 75 and 76% butter-fat and 1 lot contained only 74.5%

butter-fat. The legal standard for fat in butter is 80%. Shortages in weight, especially in the case of print were found as high as 5.4%.

The quantity of butter seized, while large in itself, represents only a very small percentage of the butter sold in the Eastern District. The findings are not to be considered as indicating that conditions in the butter industry are bad and that enforcement is inadequate. The vast majority of the manufacturers are highly ethical and maintain close control over the output to insure compliance with legal requirements. Except for a few isolated instances where manufacturers are known to be unscrupulous, the principal violations were probably due either to carelessness or ignorance on the part of small creameries where inadequate plant control was maintained.

Many Local Meetings Held in Territory

The joint educational meetings of the Inter-State Milk Producers' Association and the Philadelphia Dairy Council reached the high point in the month of May during which eleven meetings were held. These meetings were held at Kempton, Red Hill, Fleetwood, Fredericksburg, Oxford, Gap, Kimberton, Honey Brook and Unionville, Pennsylvania, and at Rising Sun and Cherry Hill, Maryland. The aggregate attendance at the meetings was 1945.

At each of these meetings, which were held under direction and co-operation of the local unit of the Milk Producers' Association, addresses were made by H. D. Allebach, president of the Association on general market conditions and the trend of the market. C. I. Cohee, Director of the Quality Control Department of the Dairy Council, emphasized

the necessity for a clean, safe milk supply and the effort being made to increase the consumption of milk through milk Wagon Drivers' School and other agencies.

Happy Goldsmith, of the Dairy Council entertained with his characteristic story on "Barnyard Golf." "What's the Big Idea?" an educational playlet, depicting the value of group organization and action was also presented at these meetings by members of the staff of the Milk Producers' Association and the Dairy Council. The cast included, Robert M. Dwyer, C. I. Cohee, W. S. Holmes, E. P. Bechtel and Frederick Shangle.

Uncle Ab says that practices which won't do in religion ought not to do in business either.

Great Interest in Farm Show Building

Great interest in the preliminary drawings for the new Pennsylvania State Farm Products Show Building was manifested in recent meetings of both the Farm Show Commission and the Farm Show Committee. The drawings were explained in detail by the architects.

The Building Committee of the Commission, consisting of C. G. Jordan, Secretary of Agriculture; R. G. Bressler, Deputy Secretary of Agriculture and Miles Horst, Secretary of the State Council of Agricultural Associations, is making a careful study of the plans and will endeavor to bring together the ideas and suggestions of the various farm groups in the Commonwealth. The Committee will report its findings to the Commission and then to the architects. At that time it is expected that the plans will take final form.

Representatives of 27 different agri-

cultural and allied organizations were present in the meeting of the State Farm Products Show Committee, where tremendous enthusiasm over the plans and prospects for the new building was evidenced.

The committee re-elected its officers, consisting of C. G. Jordan, Chairman; R. G. Bressler, Vice Chairman and Treasurer; J. M. Fry, Secretary; and Miles Horst, Assistant Secretary. One new organization—the Pennsylvania Brown Swiss Cattle Breeders Association, was admitted to membership on the Committee.

Reports on prospects for the next Show indicate expansion in practically all departments. A new feature which may be added to the poultry department in the near future is a turkey show. The committee went on record as favorable to the idea.

Both the Commission and the Show Committee are highly pleased with the prospects for future shows.

INTER-STATE MILK PRODUCERS REVIEW

Official Organ of the
Inter-State Milk Producers' Association, Inc.

August A. Miller, Editor and
Business Manager
Frederick Shangle, Advertising Manager

Published Monthly by the Inter-State Milk
Producers' Association, Inc.

Business Office
Flint Building, 219 N. Broad St., Phila., Pa.
West Chester, Pa.
Editorial and Advertising Office
Flint Building, 219 N. Broad St., Phila., Pa.
Bell Phone, Locust 5391 Locust 5392
Keystone Phone, Race 5344

Printed by Horace F. Temple, Inc.
West Chester, Pa.

Subscription
50 cents a year in advance
Advertising rates on application

"Entered as second-class matter, June 3, 1920,
at the post office at West Chester, Pennsylvania
under the Act of March 3, 1879."



The Tariff and Farm Relief continue to be much in the public eye as we read the Washington news with the former crowding the latter for the centre of the stage. As passed by the House the Tariff bill as outlined on Page 3, represents a step in the right direction to help our dairy farmers even if it did not give them the protection that they need.

The dairy farmer asked for eight cents a pound on casein, and the House gave 2½ cents—the rate in the law of 1922. Casein furnishes the most practical outlet for temporary surpluses of skim milk at fluid milk shipping points during the months of greatest production. It is produced in Argentina at very low cost being dried by nature, while the costs in this country must include machine handling. It is hoped that the Senate can be persuaded of the importance of an adequate tariff on casein.

Vegetable oils which enter into the manufacture of dairy products substitutes remain to all intents and purposes practically without any additional protection under the bill as passed by the House. The tariff on coconut oil (the most important) not increased for the reasons, said the Committee, that the bulk of it comes from the Philippines and so could not be taxed.

Of course, this matter opens up a large question—that of the relationship of the U. S. to the Philippine Islands. It is to be hoped that the Senate will find it possible to recognize the importance of protecting American farmers in the production of oil products.

For some time the trend of dairy production has been moving more and more distant from the large consuming centers. This movement has been the subject of considerable study by both producers and distributors. Recently, however, some very definite figures have been compiled and are now available to show the reason for this movement.

Data recently compiled by the Federal Census in Delaware County, Pennsylvania illustrate this movement very clearly. This county lies directly to the south and west of the city of Philadelphia and is in itself becoming a large consuming section.

In 1824, Delaware County produced 1,342,200 pounds of butter, in 1884 its production totaled 1,028,100 pounds, but in 1924 its production of butter had declined to 77,200 pounds.

Its fluid milk production in 1884 aggregated 6,280,500 gallons, while in 1924 it had declined to 3,406,300 gallons.

In 1844 the number of cows on farms in Delaware county numbered 11,200, this in

1884 increased to 15,400 while in 1924 the number of cows declined to 5,800.

These statistics graphically illustrate the movement of dairying to more distant points from the large consuming areas. This also illustrates the necessity for milk distributing companies in the larger consuming districts in locating new milk receiving plants at distances quite remote from the points of consumption, such as the stations located at Moorefield, West Virginia and at the extreme southern points on the Maryland-Delaware peninsula.

The season is upon us—in many sections it is already with us and unless we protect against it promises to become worse—and to greatly reduce the production rate and consequently the earning capacity of the dairy cow—we mean the fly nuisance season.

With the coming of the warmer weather cows should be protected against the menace of the fly.

Flies in the dairy barn can be controlled and almost entirely eliminated. The barn should be screened and trap methods used. For general efficiency however, some good spray repellent has proven quite efficient.

Clean the barns and stables, keep them free of manure—manure is an ideal breeding place for flies.

To keep up the productive rate of your cows keep them free of flies. The small sums necessary to keep your barns and cows free of flies will more than pay for the expenditure for fly sprays or other method of combating the fly—If properly used it should save you money and make more contented cows.

JUNE MILK PRICES Inter-State Milk Producers' Association, Inc.

The price paid for basic milk during June 1929, will, subject to market conditions, be the same as quoted for May 1929. Milk sold to cooperating dealers will be paid for on the basic and surplus plan.

Class I Surplus milk will be paid for by cooperating dealers on the average price of 92 score, solid pack butter, New York City, plus 20 percent. Class II Surplus will be paid for on the same basis, but less the 20 percent bonus.

MAY BUTTER PRICES

	Philadelphia	New York	Chicago
1	46½	45½	44
2	46½	45½	43½
3	46½	45½	43¼
4	46½	45½	43
5	45½	44½	43
6	45½	44½	42½
7	44½	43½	42½
8	44½	43½	41½
9	44½	43½	41½
10	44½	43½	41½
11	44½	43½	41½
12	44	43	41½
13	44	43	41½
14	44	43	41½
15	44	43	41½
16	44	43	41½
17	44	43	41½
18	44	43	41½
19	44	43	42
20	44	43	42
21	44	43	42
22	44	43	42½
23	44	43	42½
24	44	43	41½
25	44	43	41½
26	44	43	42½
27	44	43	42½
28	44	43	42

Raise Good Heifers

Cows are valuable or worthless as milk producers, according to their blood inheritance, say State College dairy specialists. Do not waste time raising heifer calves unless they are from high-producing cows and from a sire who also had a high-producing cow for his dam.

Market Conditions

H. D. ALLEBACH

After summing it all up we find that we have about five per cent. more milk produced in April than in March and also find that our production in May, according to all reports, exceeds the April production quite considerably. This big increase in production has been caused by the early spring and the continuous wet weather.

There has been an increase of surplus milk to this increase in production and the continued cool weather has lessened consumption, although we do not have many dairies laid off. Practically all the large dealers are still taking on some new dairies.

In looking back over our figures we find that the production during October, November and December, 1928, was lower than that of the fall of 1927, and past experience shows us that whenever the production is low in the fall we have a bigger increase in production at this season of the year than we do when production is high in the fall. This is a warning to the producers not to let their fall production fall too low, but keep it up so we can keep a regular supply and do not have the big production in the summer time.

Although we have a large production we find that, for the month of April, there was only about 13 per cent. of our supply sold as surplus milk, which is two or three per cent. higher than we would like to see it. Our aim is to keep the surplus within ten per cent. of our production and we believe this can be accomplished with a little effort.

Abbotts have recently closed the plant at Elverson and are bringing the surplus of that milk plant in as direct shipped milk.

In looking over our territory we find that the nearby receiving stations are being gradually closed and the milk trucked to Philadelphia as direct shipped milk, except where we have "A" milk plants.

This situation is due to a number of causes, better roads for milk hauling, increased demands from nearby local markets and in some cases to shifts in farm and city population.

May Milk Prices

Milk prices for May 1929, reverted automatically to those paid prior to March and April 1929, during which months there was a temporary advance of approximately 11½ cents per hundred pounds.

Fluid milk prices under the Philadelphia Selling Plan, will be paid for by cooperating dealers, for the month of May, on the following basis.

Grade B Market Milk (basic quantity average) three per cent butter fat content, f. o. b. Philadelphia, is quoted at \$3.29 per hundred pounds or 7.1 per quart.

Grade B Market Milk, (basic average) three per cent butter fat content, delivered at receiving stations in the 51 to 60 mile zone, for May, is quoted at \$2.71 per

hundred pounds. The usual butter fat differentials and freight rate variations, applying to other mileage points in the territory are shown by quotations on page 5, of this issue of the Milk Producers' Review.

Surplus Prices

The price of Class I surplus milk for May, three per cent butter fat content delivered f. o. b. Philadelphia is quoted at \$2.25 per hundred pounds of \$4.85 per quart. The price of Class I surplus of the same butter fat content, at receiving stations, is \$1.67 per receiving hundred pounds.

The price of Class II surplus, three per cent butter fat content for May, f. o. b. Philadelphia, is quoted at \$1.90 per hundred pounds or 4.1 cents per quart. The price of Class II surplus, at all receiving stations, of the same butter fat content is quoted at \$1.32 per hundred pounds.

The price of "A" Milk under the usual butter fat differentials and prices in the different mileage zones in the territory and at "A" stations for May are quoted on page 5 of this issue of the Milk Producers' Review.

May Butter Market

Prices declined sharply during the first ten days of the month. The approaching flush season and the disposition to move surplus stock had an unfavorable influence on the market. The lowest price since August 1927, 43 cents for 92 score solid packed butter, was reached on April 13th. There was an apparent lack of confidence and almost daily declines made it impossible to reach a stable basis.

It was mid-month before any degree of stability was apparent. When the price reached 43 cents, it was believed that at that price butter was cheap and an area of price stability appeared to have been reached. Larger quantities began to go into storage and greater firmness was apparent.

Statistically the volume of butter in storage was low. Government reports showed that on May 1st, creamery butter in the freezers amounted to 5,860,000 pounds, as compared to 5,109,000 May 1st one year ago and a five year average of 7,745,000 pounds.

During the last half of the month butter prices stood unchanged at 43 cents. More firmness however was exhibited in the eastern markets than was the case in the west where some price fluctuations developed.

Production on the whole however is steadily increasing and arrivals at the eastern market are steadily increasing.

So far but little speculative demand has arisen, as in many sections the flush production season has not yet developed.

The average price of 92 score butter, solid packed, New York City, on which the surplus price for May was computed was .4376 cents, as compared to .4541 cents one month ago and .4506 cents, the average price quoted for 1928.

Value of Pennsylvania Dairy Cattle

Statistics show that in 1928 there were 855,000 dairy cattle in the state of Pennsylvania, valued at \$94,905,000. This shows an increase in value of nearly \$12,000,000 as compared to the previous year, with the number of cows approximately the same. These figures are based on milk cows and heifers two years old and over.

Pennsylvania stands in fifth place as compared to other states in the Union, being exceeded by Wisconsin, New York, Minnesota and Iowa.

The upward trend in value is said to reflect improvement in the quality of the dairy cow. The principal reason for this being better breeding and the elimination of the low producer.

INTER-STATE MILK PRODUCERS' ASSOCIATION

RECEIVING STATION PRICES in effect June 1st, 1929.

Subject to change whenever warranted by market conditions.

These quotations are based on 3% butterfat milk with a differential of 4 cents for each tenth point and 2 cents for each half tenth point up or down, and are for all railroad points. (Inland stations carry differentials subject to local arrangements)

This price list is issued with the understanding that it is net to producers and that all buyers using it as a basis of payment to producers shall in addition thereto make the following contributions and payments.

(1) To the Philadelphia Inter-State Dairy Council 2¢ per hundred pounds (46½ quarts) of all milk bought from any producer at price listed hereon.

(2) To the Inter-State Milk Producers' Association 2¢ per hundred pounds (46½ quarts) of all milk bought from members of said association.

(3) To the Philadelphia Inter-State Dairy Council 2¢ per hundred pounds (46½ quarts) of all milk bought from other producers at price listed hereon.

The funds so derived are to be used by the recipients for improving standards of quality in production and distribution of milk in the Philadelphia Milk Shed; for improvement and stabilization of markets and for an educational campaign advertising the food value of dairy products.

Basic price June first.			May surplus price.			
Miles	Freight rate	Basic quantity		Class 1		Class 2
		Price	3% milk	Test	Per 100#	Test Per 100 #
1 to 10	inc.	.268	\$2.79	3.	\$1.67	3.
11 to 20	"	.283	2.77	3.05	1.69	3.05
21 to 30	"	.303	2.75	3.1	1.71	3.1
31 to 40	"	.313	2.74	3.15	1.73	3.15
41 to 50	"	.333	2.72	3.2	1.75	3.2
51 to 60	"	.343	2.71	3.25	1.77	3.25
61 to 70	"	.364	2.69	3.3	1.79	3.3
71 to 80	"	.374	2.68	3.35	1.81	3.35
81 to 90	"	.389	2.67	3.4	1.83	3.4
91 to 100	"	.399	2.66	3.45	1.85	3.45
101 to 110	"	.414	2.64	3.5	1.87	3.5
111 to 120	"	.424	2.63	3.55	1.89	3.55
121 to 130	"	.434	2.62	3.6	1.91	3.6
131 to 140	"	.450	2.61	3.65	1.93	3.65
141 to 150	"	.460	2.60	3.7	1.95	3.7
151 to 160	"	.475	2.58	3.75	1.97	3.75
161 to 170	"	.480	2.58	3.8	1.99	3.8
171 to 180	"	.490	2.57	3.85	2.01	3.85
181 to 190	"	.505	2.55	3.9	2.03	3.9
191 to 200	"	.510	2.55	3.95	2.05	3.95
201 to 210	"	.520	2.54	4.	2.07	4.
211 to 220	"	.535	2.52	4.05	2.09	4.05
221 to 230	"	.540	2.52	4.1	2.11	4.1
231 to 240	"	.550	2.51	4.15	2.13	4.15
241 to 250	"	.556	2.50	4.2	2.15	4.2
251 to 260	"	.566	2.49	4.25	2.17	4.25
261 to 270	"	.576	2.48	4.3	2.19	4.3
271 to 280	"	.581	2.48	4.35	2.21	4.35
281 to 290	"	.596	2.46	4.4	2.23	4.4
291 to 300	"	.600	2.46	4.45	2.25	4.45
				4.5	2.27	4.5
				4.55	2.29	4.55
				4.6	2.31	4.6
				4.65	2.33	4.65
				4.7	2.35	4.7
				4.75	2.37	4.75
				4.8	2.39	4.8
				4.85	2.41	4.85
				4.9	2.43	4.9
				4.95	2.45	4.95
				5.	2.47	5.

By order of the Board of Directors

Fifth Floor, Flint Bldg., Philadelphia, Pa.
H. D. Allebach, President.
Robert Baldwin, Secretary.
Issued May 28th, 1929.

LATEST MARKET PRICES

The basic price, quoted below for May, 1929, is to be paid by co-operating dealers on the average basic quantity established by each producer. For all milk bought in excess of the basic amount, the surplus prices, quoted below for the month of May, 1929, are to be paid.

Surplus milk will be paid for under two classifications. Class I, represented by the amount of milk in excess of the basic average and equal to it in amount, which will be paid for by co-operating dealers on the basis of 92 score butter, solid pack, New York City, plus 20 per cent and Class II surplus represented by milk shipped in excess of the first surplus amount, which will be paid for on a flat average 92 score butter price for the month.

The following quotations are based on 3 per cent butterfat content milk and a differential of 4 cents for each tenth point and 2 cents for each half-tenth point, up or down, and are for all railroad points. (Quoted stations carry differential subject to local arrangements.)

PHILADELPHIA SELLING PLAN

INTER-STATE MILK PRODUCERS' ASSOCIATION PRICES

This price list is issued with the understanding that it is not to be produced and that all buyers using it as a basis of payment to producers, shall in addition thereto make the following contributions and payments:

- (1) To the Philadelphia Inter-State Dairy Council 2c per 100 pounds (46½ quarts) of all milk purchased from any producer at prices listed hereon.
- (2) To the Inter-State Milk Producers' Association 2c per 100 pounds (46½ quarts) of all milk bought from members of said association.
- (3) To the Philadelphia Inter-State Dairy Council 2c per 100 pounds (46½ quarts) of all milk bought from other producers at prices listed hereon.

The funds so derived are to be used by the recipients for improving standards of quality in production and distribution of milk in the Philadelphia Milk Shed, for improvement and stabilization of markets and for an educational campaign advertising the food value of dairy products.

BASIC PRICE

May, 1929

F. O. B. Philadelphia

Grade B Market Milk

Test Per Cent	Per 100 lbs.	Price Per Qt.
3.05	3.31	7.1
3.1	3.33	7.15
3.15	3.35	7.2
3.2	3.37	7.25
3.25	3.39	7.3
3.3	3.41	7.35
3.35	3.43	7.4
3.4	3.45	7.45
3.45	3.47	7.5
3.5	3.49	7.55
3.55	3.51	7.55
3.6	3.53	7.6
3.65	3.55	7.65
3.7	3.57	7.65
3.75	3.59	7.7
3.8	3.61	7.75
3.85	3.63	7.8
3.9	3.65	7.85
3.95	3.67	7.9
4	3.69	7.95
4.05	3.71	8
4.1	3.73	8.05
4.15	3.75	8.1
4.2	3.77	8.15
4.25	3.79	8.2
4.3	3.81	8.25
4.35	3.83	8.3
4.4	3.85	8.35
4.45	3.87	8.4
4.5	3.89	8.45
4.55	3.91	8.5
4.6	3.93	8.55
4.65	3.95	8.6
4.7	3.97	8.65
4.75	3.99	8.7
4.8	4.01	8.75
4.85	4.03	8.8
4.9	4.05	8.85
4.95	4.07	8.9

When milk is not tested the price f. o. b. Philadelphia is 8 cents per quart.

MAY SURPLUS PRICES

F. O. B. Philadelphia

Test Per Cent	Per 100 lbs.	Per Qt.
3.05	3.31	7.1
3.1	3.33	7.15
3.15	3.35	7.2
3.2	3.37	7.25
3.25	3.39	7.3
3.3	3.41	7.35
3.35	3.43	7.4
3.4	3.45	7.45
3.45	3.47	7.5
3.5	3.49	7.55
3.55	3.51	7.55
3.6	3.53	7.6
3.65	3.55	7.65
3.7	3.57	7.65
3.75	3.59	7.7
3.8	3.61	7.75
3.85	3.63	7.8
3.9	3.65	7.85
3.95	3.67	7.9
4	3.69	7.95
4.05	3.71	8
4.1	3.73	8.05
4.15	3.75	8.1
4.2	3.77	8.15
4.25	3.79	8.2
4.3	3.81	8.25
4.35	3.83	8.3
4.4	3.85	8.35
4.45	3.87	8.4
4.5	3.89	8.45
4.55	3.91	8.5
4.6	3.93	8.55
4.65	3.95	8.6
4.7	3.97	8.65
4.75	3.99	8.7
4.8	4.01	8.75
4.85	4.03	8.8
4.9	4.05	8.85
4.95	4.07	8.9

When milk is not tested the price f. o. b. Philadelphia is 8 cents per quart.

MONTHLY SURPLUS PRICES

4% at all Receiving Stations

1928	CLASS I	CLASS II
January	2.43	1.27
February	2.21	1.83
March	2.35	1.96
April	2.17	1.80
May	2.13	1.77
June	2.09	1.73
July	2.12	1.77
August	2.20	1.83
September	2.31	1.93
October	2.31	1.93
November	2.31	1.93
December	2.31	1.93
1929	2.26	1.88
January	2.36	1.96
February	2.31	1.92
March	2.15	1.79
April	2.07	1.72

BASIC PRICE

May, 1929

Country Receiving Stations

Test Per Cent	Per 100 lbs.	Price Per Qt.
3.05	3.31	7.1
3.1	3.33	7.15
3.15	3.35	7.2
3.2	3.37	7.25
3.25	3.39	7.3
3.3	3.41	7.35
3.35	3.43	7.4
3.4	3.45	7.45
3.45	3.47	7.5
3.5	3.49	7.55
3.55	3.51	7.55
3.6	3.53	7.6
3.65	3.55	7.65
3.7	3.57	7.65
3.75	3.59	7.7
3.8	3.61	7.75
3.85	3.63	7.8
3.9	3.65	7.85
3.95	3.67	7.9
4	3.69	7.95
4.05	3.71	8
4.1	3.73	8.05
4.15	3.75	8.1
4.2	3.77	8.15
4.25	3.79	8.2
4.3	3.81	8.25
4.35	3.83	8.3
4.4	3.85	8.35
4.45	3.87	8.4
4.5	3.89	8.45
4.55	3.91	8.5
4.6	3.93	8.55
4.65	3.95	8.6
4.7	3.97	8.65
4.75	3.99	8.7
4.8	4.01	8.75
4.85	4.03	8.8
4.9	4.05	8.85
4.95	4.07	8.9

When milk is not tested the price f. o. b. Philadelphia is 8 cents per quart.

MAY SURPLUS PRICES

F. O. B. Philadelphia

Test Per Cent	Per 100 lbs.	Per Qt.
3.05	3.31	7.1
3.1	3.33	7.15
3.15	3.35	7.2
3.2	3.37	7.25
3.25	3.39	7.3
3.3	3.41	7.35
3.35	3.43	7.4
3.4	3.45	7.45
3.45	3.47	7.5
3.5	3.49	7.55
3.55	3.51	7.55
3.6	3.53	7.6
3.65	3.55	7.65
3.7	3.57	7.65
3.75	3.59	7.7
3.8	3.61	7.75
3.85	3.63	7.8
3.9	3.65	7.85
3.95	3.67	7.9
4	3.69	7.95
4.05	3.71	8
4.1	3.73	8.05
4.15	3.75	8.1
4.2	3.77	8.15
4.25	3.79	8.2
4.3	3.81	8.25
4.35	3.83	8.3
4.4	3.85	8.35
4.45	3.87	8.4
4.5	3.89	8.45
4.55	3.91	8.5
4.6	3.93	8.55
4.65	3.95	8.6
4.7	3.97	8.65
4.75	3.99	8.7
4.8	4.01	8.75
4.85	4.03	8.8
4.9	4.05	8.85
4.95	4.07	8.9

When milk is not tested the price f. o. b. Philadelphia is 8 cents per quart.

MONTHLY BASIC PRICE OF GRADE B

OR MARKET MILK

3 per cent butterfat content

1928	F. O. B. Phila.	Receiving station 50 mile zone per cwt.
January	2.29	2.71
February	2.29	2.71
March	2.29	2.71
April	2.29	2.71
May	2.29	2.71
June	2.29	2.71
July	2.29	2.71
August	2.29	2.71
September	2.29	2.71
October	2.29	2.71
November	2.29	2.71
December	2.29	2.71
1929	2.29	2.71
January	2.29	2.71
February	2.29	2.71
March	2.29	2.71
April	2.29	2.71
May	2.29	2.71

Give a calf the right start. Heifers cost too much to raise to waste time on poor ones. A good heifer poorly developed is not a good investment, either.

May 1929, "Inter-State" Prices at "A" Delivery Points

The price of "A" milk of any given butterfat content and bacteria count at any "A" milk delivery point may be ascertained by adding to the base price per 100 lbs. for 3.50% B.F. milk at that delivery point, as given in Table I, butterfat differentials and bacteria bonuses as indicated in Table II.

Table I—Base Prices at "A" Milk Delivery Points

NAME OF DELIVERY POINT	Delivery Point Location in Mileage Zone from Phila.	Minimum Butterfat Test Requirement in Effect at Delivery Point	Base Price of 3.50% Milk per 100 lbs.
Phila. Terminal Market	F.O.B.	Per Cent	\$3.49
47th and Lancaster	F.O.B.	4.00	3.49
31st and Chestnut	F.O.B.	4.00	3.49
Baldwin Dairies	F.O.B.	4.00	3.49
Breuninger Dairies	F.O.B.	4.00	3.49
Other Terminal Markets	F.O.B.	4.00	3.49
Norristown, Pa.	F. O. B. less 9 cts.	4.00	3.40
Wilmington, Del.	F. O. B. less 30 cts.	4.00	3.19
Receiving Stations			
Anselma, Pa.	41-50	3.60	2.92
Bedford, Pa.	261-270	3.80	2.68
Boyetown, Pa.	51-60	3.60	2.91
Bridgeton, N. J.	31-40	3.70	2.94
Byers, Pa.	41-50	3.50	2.92
Curryville, Pa.	261-270	3.50	2.68
Goshen, Pa.	51-60	3.50	2.74
Huntingdon, Pa.	201-210	3.50	2.91
Kelton, Pa.	51-60	3.50	2.92
Kimberton, Pa.	41-50	4.20	2.92
Landenberg, Pa.	41-50	3.80	2.75
Mercersburg, Pa.	181-190	3.70	2.81
Nassau, Del.	131-140	3.70	2.81
Oxford, Pa.	51-60	3.60	2.91
Palm, Pa.	51-60	3.60	2.91
Red Hill, Pa.	51-60	3.60	2.91
Ringoes, N. J.	51-60	4.20	2.94
Rushland, Pa.	31-40	4.20	2.92
Stockton, N. J.	41-50	4.20	2.92
Toughkenamon, Pa.	41-50	3.80	2.75
Waynesboro, Pa.	221-230	3.70	2.72
Williamsburg, Pa.	41-50	3.60	2.94
York, Pa.	41-50	3.60	2.92
Zieglerville, Pa.	41-50	3.60	2.92
Lat Surplus Price	F. O. B. Phila.	4.00	2.45
2nd Surplus Price	F. O. B. Phila.	4.00	2.10
1st Surplus Price	F. O. B. All Rec. Sta.	A	1.87
2nd Surplus Price	F. O. B. All Rec. Sta.	A	1.52

*Based on Oxford, Pa., less 12 cents per 100 lbs.

A—Same Butterfat Minimum Requirement as in effect for Basic Milk at each Receiving Station

Table II—Total B.F. and Bacteria Payments Above Base Price for "A" Milk

Butterfat Test Per Cent	Premium for Butterfat Content Above 3.50%		Total combined payment for Butterfat differential and bacteria bonus above base price per 100 lbs. for 3.50% B. F. milk.				
	If Bacteria Premium is Made	If Bacteria Premium is not Made	CLASS OF BACTERIA REQUIREMENT (See note I for definition of each class of bacteria requirement)				
			I	II	III	IV	V
3.50	.00	.00	.40	.25	.25	.15	None
3.55	.03	.02	.43	.28	.28	.18	.02
3.60	.06	.04	.46	.31	.31	.21	.04
3.65	.09	.06	.49	.34	.34	.24	.06
3.70	.12	.08	.52	.37	.37	.27	.08
3.75	.15	.10	.55	.40	.40	.30	.10
3.80	.18	.12	.58	.43	.43	.33	.12
3.85	.21	.14	.61	.46	.46	.36	.14
3.90	.24	.16	.64	.49	.49	.39	.16
3.95	.27	.18	.67	.52	.52	.42	.18
4.00	.30	.20	.70	.55	.55	.45	.20
4.05	.33	.22	.73	.58	.58	.48	.22
4.10	.36	.24	.76	.61	.61	.51	.24
4.15	.39	.26	.79	.64	.64	.54	.26
4.20	.42	.28	.82	.67	.67	.57	.28
4.25	.45	.30	.85	.70	.70	.60	.30
4.30	.48	.32	.88	.73	.73	.63	.32
4.35	.51	.34	.91	.76	.76	.66	.34
4.40	.54	.36	.94	.79	.79	.69	.36
4.45	.57	.38	.97	.82	.82	.72	.38
4.50	.60	.40	1.00	.85	.85	.75	.40
4.55	.63	.42	.99	.88	.89	.78	.42
4.60	.66	.44	1.08	.93	.93	.83	.44
4.65	.69	.46	1.12	.97	.97	.87	.46
4.70	.72	.48	1.01	1.01	1.01	.91	.48
4.75	.75	.50	1.05	1.05	1.05	.95	.50
4.80	.78	.52	1.09	1.09	1.09	.99	.52
4.85	.81	.54	1.13	1.13	1.13	1.03	.54
4.90	.84	.56	1.17	1.17	1.17	1.07	.56
4.95	.87	.58	1.21	1.21	1.21	1.11	.58
5.00	.90	.60	1.25	1.25	1.25	1.15	.60
5.05	.93	.62	1.29	1.29	1.29	1.19	.62
5.10	.96	.64	1.33	1.33	1.33	1.23	.64
5.15	1.00	.66	1.37	1.37	1.37	1.27	.66
5.20	1.04	.68	1.41	1.41	1.41	1.31	.68
5.25	1.08	.70	1.45	1.45	1.45	1.35	.70
5.30	1.12	.72	1.49	1.49	1.49	1.39	.72
5.35	1.16	.74	1.53	1.53	1.53	1.43	.74
5.40	1.20	.76	1.57	1.57	1.57	1.47	.76
5.45	1.24	.78	1.61	1.61	1.61	1.51	.78
5.50	1.30	.80	1.65	1.65	1.65	1.55	.80
5.55	1.34	.82	1.69	1.69	1.69	1.59	.82
5.60	1.38	.84	1.73	1.73	1.73	1.63	.84
5.65	1.42	.86	1.77	1.77	1.77	1.67	.86
5.70	1.46	.88	1.81	1.81	1.81	1.71	.88
5.75	1.50	.90	1.85	1.85	1.85	1.75	.90
5.80	1.54	.92	1.89	1.89	1.89	1.79	.92
5.85	1.58	.94	1.93	1.93	1.93	1.83	.94
5.90	1.62	.96	1.97	1.97	1.97	1.87	.96
5.95	1.66	.98	2.01	2.01	2.01	1.91	.98
6.00	1.70	1.00	2.05	2.05	2.05	1.95	1.00

Holstein-Friesian Association of America Holds 44th Annual Convention in Philadelphia

(Continued from page 1)

heads, committees, etc., were received and acted upon.

A number of resolutions were presented, and adopted. These had to do with recommendations in connection with proposed national tariff enactments; with various changes in the by-laws of the association and the expansion of its territory, etc.

The following program was then presented:

"Silly Goose's Mistake," by children from the Hamilton Public School, Philadelphia, Pa.; "Beauty's Bloom," by children from the Barrett Junior High School, Philadelphia; "Barnyard Golf," by Happy Goldsmith, National Dairy

Ways and Means
H. D. Allebach, Trappe, Pa.

John M. Dennis, Baltimore, Md.
Martin J. Sheridan, Lebanon, N. J.
J. Howard Schabinger, Felton, Del.

Entertainment
Robert F. Brinton, West Chester, Pa.
Ivo V. Otta, Carlisle, Pa.
J. H. Kelly, Walkerville, Md.
E. W. Van Meter, Bridgeton, N. J.
J. R. Danks, Winterthur, Del.

Reception to Ladies
Mrs. R. F. Brinton, West Chester, Pa.
Mrs. H. E. Robinson, York, Pa.

Reception to Visiting Members
Dr. L. M. Thompson, Montrose, Pa.
Frank A. Keen, West Chester, Pa.
Convention Publicity and Attendance
Alan H. Crissey, Salem, N. J.
August A. Miller, Philadelphia, Pa.
W. C. Devine, Philadelphia, Pa.

Sales
Paul B. Weisner, Abington, Pa.

An elaborate program of entertainment for the visiting ladies of the delegates and guests was arranged by the committee. Details of this program will be found on Page 8 of this issue of the Milk Producers' Review.

The Sixth Brentwood National Sale of Holstein-Friesian Cattle was held on June 6th, 7th, 1929, at the Commercial Museums, Philadelphia. About 152 outstanding cattle of the breed were offered for sale.

Seventy-one head of pure-bred Holstein-Friesian cattle were sold on the first day of the sale for an aggregate price of \$58,960. The average price obtained for the

cattle sold was \$830. The rest of the 152 cattle consigned to the sale from all parts of the United States and from Canada will be sold on the second day of the sale.

Thirteen head of cattle were sold on the first day for more than \$1000 each. The high price for the day was \$10,100, for a young Holstein bull, purchased by the Winterthur Farms of H. F. duPont, at Winterthur, Del.

Quality Control Department statistics show that 4921 pounds of milk per cow were sold from 6000 farms scattered throughout the entire Inter-State Milk Producers' Association territory during 1928. This would indicate that the production per cow is considerably over 5000 pounds as the above figure does not allow for milk for home use on the farm or for calf feeding.

The Eastern States Farmers' Exchange is a cooperative buying organization owned and controlled by the farmers who use the commodities it distributes. Its feed buying program includes the purchasing of ingredients best suited to the needs of those farmers, the blending of those ingredients into formulas suited to the various conditions its members meet, and the distributing of those feeds—or ingredients for home-mixing—to the members as economically as possible.

The Eastern States Farmers' Exchange astonishes those who do not understand that it is a farmers' cooperative organization by constantly recommending to its patrons ways and means by which they can reduce the amount of feed and grain they purchase and maintain quantity and economical production. Its members, however, appreciating the value of its advisory service, know it to be a service organization pure and simple operating effectively in their interests.

To meet the summer and fall production problems most effectively, get in touch with this farmers' service organization. No farmer is too small and none too large to benefit from Eastern States service. If you are also thinking of trying the service which thousands are endorsing with their patronage, write the office for information.

Eastern States Farmers' Exchange
A non-stock, non-profit organization, owned and controlled by the farmers it serves.

HEADQUARTERS:
SPRINGFIELD, MASSACHUSETTS

Herbison's Dairies new plant at Carlisle, Pa., is rapidly reaching completion. It is expected that the plant will be open to receive milk during the present month.

The Dairy Council has just launched a milk salesmen school at the Suburban Dairies, Audubon, N. J. About twenty-five drivers comprise the group.

of the delegates and members was composed of the following committees of the Pennsylvania, New Jersey, Maryland and Delaware Federation of Holstein-Friesian Clubs:

General Committee
H. G. Robinson, York, Pa.
Eugene Stapler, Yardley, Pa.
G. D. Brill, Jamesburg, N. J.
Wm R. Whittegham, Glencoe, Md.
Richard C. McMullen, Wilmington, Del.

Mr. Balderston briefly outlined the work of the National Dairy Council and of its affiliated unit, the Philadelphia Dairy Council, who were presenting in the form of educational entertainment a major portion of the evening's entertainment, typifying the character of such means employed in publicity and educational work by the councils generally.

Denver, Colorado, was selected as the place for the holding of the 45th convention of the association in 1930.

Banquet and Entertainment
The Banquet was held at the Benjamin Franklin Hotel, and was participated in by 525 members and guests. H. D. Allebach, president of the Pennsylvania Federation of Holstein Clubs acted as master of ceremonies. Brief addresses were made by J. R. Danks, of Winterthur Farms; Dr. F. M. Thompson, vice president of the Holstein-Friesian Association of America and Robert W. Balderston, secretary of the Philadelphia Inter-State Dairy Council.

Mr. Balderston briefly outlined the work of the National Dairy Council and of its affiliated unit, the Philadelphia Dairy Council, who were presenting in the form of educational entertainment a major portion of the evening's entertainment, typifying the character of such means employed in publicity and educational work by the councils generally.

Fifty-six head of pure bred Guernseys were sold at Sunnyridge Farm, May 29th, at an average price of \$430.00 per head. Flora of Hillbrook topped the sale at \$1100 dollars. She was consigned by Breidablick Farms and purchased by Miss Caroline Archer of Reading, Pa.

The sale was well attended, bidding was spirited, and the animals sold promptly.



Pure Bred Herd of Mr. H. D. Allebach in his pasture field

Nomination and Election of Officers and Directors

Following the report of the nominating Committee, which presented the names of Hon. Frank O. Lowden, Oregon, Ill., for president, Dr. L. M. Thompson, Montrose, Pa., vice president and the following directors: W. D. Roberts, Poland, N. Y.; Frank Pabst, Milwaukee, Wis.; Ruth McCormick, Byron, Ill.; and T. E. Elder, Mt. Vernon, Mass., two nominations were made from the floor of the meeting. These were for directors and included, F. A. Walker, Oregon, Virginia and L. P. Winger, Colorado.

The president, Hon. Frank O. Lowden, and the vice president, Dr. L. M. Thompson, were elected by acclamation. A delegate election for directors resulted in the selection of the first four named nominees.

Denver, Colorado, was selected as the place for the holding of the 45th convention of the association in 1930.

Banquet and Entertainment
The Banquet was held at the Benjamin Franklin Hotel, and was participated in by 525 members and guests. H. D. Allebach, president of the Pennsylvania Federation of Holstein Clubs acted as master of ceremonies. Brief addresses were made by J. R. Danks, of Winterthur Farms; Dr. F. M. Thompson, vice president of the Holstein-Friesian Association of America and Robert W. Balderston, secretary of the Philadelphia Inter-State Dairy Council.

Mr. Balderston briefly outlined the work of the National Dairy Council and of its affiliated unit, the Philadelphia Dairy Council, who were presenting in the form of educational entertainment a major portion of the evening's entertainment, typifying the character of such means employed in publicity and educational work by the councils generally.

Fifty-six head of pure bred Guernseys were sold at Sunnyridge Farm, May 29th, at an average price of \$430.00 per head. Flora of Hillbrook topped the sale at \$1100 dollars. She was consigned by Breidablick Farms and purchased by Miss Caroline Archer of Reading, Pa.

The sale was well attended, bidding was spirited, and the animals sold promptly.

of the delegates and members was composed of the following committees of the Pennsylvania, New Jersey, Maryland and Delaware Federation of Holstein-Friesian Clubs:

General Committee
H. G. Robinson, York, Pa.
Eugene Stapler, Yardley, Pa.
G. D. Brill, Jamesburg, N. J.
Wm R. Whittegham, Glencoe, Md.
Richard C. McMullen, Wilmington, Del.

Mr. Balderston briefly outlined the work of the National Dairy Council and of its affiliated unit, the Philadelphia Dairy Council, who were presenting in the form of educational entertainment a major portion of the evening's entertainment, typifying the character of such means employed in publicity and educational work by the councils generally.

Fifty-six head of pure bred Guernseys were sold at Sunnyridge Farm, May 29th, at an average price of \$430.00 per head. Flora of Hillbrook topped the sale at \$1100 dollars. She was consigned by Breidablick Farms and purchased by Miss Caroline Archer of Reading, Pa.

The sale was well attended, bidding was spirited, and the animals sold promptly.

of the delegates and members was composed of the following committees of the Pennsylvania, New Jersey, Maryland and Delaware Federation of Holstein-Friesian Clubs:

General Committee
H. G. Robinson, York, Pa.
Eugene Stapler, Yardley, Pa.
G. D. Brill, Jamesburg, N. J.
Wm R. Whittegham, Glencoe, Md.
Richard C. McMullen, Wilmington, Del.

Mr. Balderston briefly outlined the work of the National Dairy Council and of its affiliated unit, the Philadelphia Dairy Council, who were presenting in the form of educational entertainment a major portion of the evening's entertainment, typifying the character of such means employed in publicity and educational work by the councils generally.

Fifty-six head of pure bred Guernseys were sold at Sunnyridge Farm, May 29th, at an average price of \$430.00 per head. Flora of Hillbrook topped the sale at \$1100 dollars. She was consigned by Breidablick Farms and purchased by Miss Caroline Archer of Reading, Pa.

The sale was well attended, bidding was spirited, and the animals sold promptly.

of the delegates and members was composed of the following committees of the Pennsylvania, New Jersey, Maryland and Delaware Federation of Holstein-Friesian Clubs:

General Committee
H. G. Robinson, York, Pa.
Eugene Stapler, Yardley, Pa.
G. D. Brill, Jamesburg, N. J.
Wm R. Whittegham, Glencoe, Md.
Richard C. McMullen, Wilmington, Del.

Mr. Balderston briefly outlined the work of the National Dairy Council and of its affiliated unit, the Philadelphia Dairy Council, who were presenting in the form of educational entertainment a major portion of the evening's entertainment, typifying the character of such means employed in publicity and educational work by the councils generally.

Fifty-six head of pure bred Guernseys were sold at Sunnyridge Farm, May 29th, at an average price of \$430.00 per head. Flora of Hillbrook topped the sale at \$1100 dollars. She was consigned by Breidablick Farms and purchased by Miss Caroline Archer of Reading, Pa.

The sale was well attended, bidding was spirited, and the animals sold promptly.

Eastern States Farmers' Exchange

The Fall Milk Problem

The program on which Eastern States feeds are built fits them admirably to meet the needs of eastern farmers this summer. They are built to keep cows in the pink of condition as well as to help cows make milk. The success eastern farmers have this fall meeting the demand for fluid milk depends upon how well they have sustained their spring cows through the summer and how well they have fitted their summer and fall cows for their lactation periods.

Where records are kept Eastern States feeds prove their worth.

Many a farmer who has fed his cows Eastern States feeds because a few month's trial has convinced him that the feeds help make milk economically has found that after all the chief satisfaction obtained from Eastern States feeds lies in their ability to materially help keep his milking herd in shape for sustained economical production. Eastern States feeds keep the cows in good working order year after year and they bring the calves to maturity well grown and with constitutions capable of long service in the milking herd.

Successful dairymen value these qualities. They know that good cows are hard to replace, and that feeds which maintain good cows in health make much more for them than that day's milk.

The Eastern States Farmers' Exchange is a cooperative buying organization owned and controlled by the farmers who use the commodities it distributes. Its feed buying program includes the purchasing of ingredients best suited to the needs of those farmers, the blending of those ingredients into formulas suited to the various conditions its members meet, and the distributing of those feeds—or ingredients for home-mixing—to the members as economically as possible.

The Eastern States Farmers' Exchange astonishes those who do not understand that it is a farmers' cooperative organization by constantly recommending to its patrons ways and means by which they can reduce the amount of feed and grain they purchase and maintain quantity and economical production. Its members, however, appreciating the value of its advisory service, know it to be a service organization pure and simple operating effectively in their interests.

To meet the summer and fall production problems most effectively, get in touch with this farmers' service organization. No farmer is too small and none too large to benefit from Eastern States service. If you are also thinking of trying the service which thousands are endorsing with their patronage, write the office for information.

Eastern States Farmers' Exchange
A non-stock, non-profit organization, owned and controlled by the farmers it serves.

HEADQUARTERS:
SPRINGFIELD, MASSACHUSETTS

Herbison's Dairies new plant at Carlisle, Pa., is rapidly reaching completion. It is expected that the plant will be open to receive milk during the present month.

The Dairy Council has just launched a milk salesmen school at the Suburban Dairies, Audubon, N. J. About twenty-five drivers comprise the group.

of the delegates and members was composed of the following committees of the Pennsylvania, New Jersey, Maryland and Delaware Federation of Holstein-Friesian Clubs:

General Committee
H. G. Robinson, York, Pa.
Eugene Stapler, Yardley, Pa.
G. D. Brill, Jamesburg, N. J.
Wm R. Whittegham, Glencoe, Md.
Richard C. McMullen, Wilmington, Del.

Mr. Balderston briefly outlined the work of the National Dairy Council and of its affiliated unit, the Philadelphia Dairy Council, who were presenting in the form of educational entertainment a major portion of the evening's entertainment, typifying the character of such means employed in publicity and educational work by the councils generally.

Fifty-six head of pure bred Guernseys were sold at Sunnyridge Farm, May 29th, at an average price of \$430.00 per head. Flora of Hillbrook topped the sale at \$1100 dollars. She was consigned by Breidablick Farms and purchased by Miss Caroline Archer of Reading, Pa.

The sale was well attended, bidding was spirited, and the animals sold promptly.

of the delegates and members was composed of the following committees of the Pennsylvania, New Jersey, Maryland and Delaware Federation of Holstein-Friesian Clubs:

General Committee
H. G. Robinson, York, Pa.
Eugene Stapler, Yardley, Pa.
G. D. Brill, Jamesburg, N. J.
Wm R. Whittegham, Glencoe, Md.
Richard C. McMullen, Wilmington, Del.

Mr. Balderston briefly outlined the work of the National Dairy Council and of its affiliated unit, the Philadelphia Dairy Council, who were presenting in the form of educational entertainment a major portion of the evening's entertainment, typifying the character of such means employed in publicity and educational work by the councils generally.

Fifty-six head of pure bred Guernseys were sold at Sunnyridge Farm, May 29th, at an average price of \$430.00 per head. Flora of Hillbrook topped the sale at \$1100 dollars. She was consigned by Breidablick Farms and purchased by Miss Caroline Archer of Reading, Pa.

The sale was well attended, bidding was spirited, and the animals sold promptly.

of the delegates and members was composed of the following committees of the Pennsylvania, New Jersey, Maryland and Delaware Federation of Holstein-Friesian Clubs:

General Committee
H. G. Robinson, York, Pa.
Eugene Stapler, Yardley, Pa.
G. D. Brill, Jamesburg, N. J.
Wm R. Whittegham, Glencoe, Md.
Richard C. McMullen, Wilmington, Del.

Mr. Balderston briefly outlined the work of the National Dairy Council and of its affiliated unit, the Philadelphia Dairy Council, who were presenting in the form of educational entertainment a major portion of the evening's entertainment, typifying the character of such means employed in publicity and educational work by the councils generally.

Fifty-six head of pure bred Guernseys were sold at Sunnyridge Farm, May 29th, at an average price of \$430.00 per head. Flora of Hillbrook topped the sale at \$1100 dollars. She was consigned by Breidablick Farms and purchased by Miss Caroline Archer of Reading, Pa.

The sale was well attended, bidding was spirited, and the animals sold promptly.

I. M. P. A. Directors Hold

Their Bi-Monthly Meeting

The regular bi-monthly meeting of the Board of Directors of the Inter-State Milk Producers' Association was held at the offices of the association in Philadelphia on June 3rd and 4th, at which the following officers and members, in addition to the field representatives of the Inter-State Association and the Dairy Council.

The officers and directors present included:

H. D. Allebach, president; Frederick Shangle, vice president; Robert F. Brinton, treasurer; F. M. Twining, assistant treasurer; R. W. Balderston, secretary; I. R. Zöllers, assistant secretary and the following directors: S. K. Andrews, J. H. Bennet, Ira J. Book, E. H. Donovan, E. Nelson James, J. W. Keith, H. I. Lauver, I. V. Otto, J. A. Poorbaugh, C. F. Preston, Albert Sarig, John Carvel Sutton, C. C. Tallman, Harry B. Stewart, S. U. Troutman, R. I. Tussey, Frank P. Willits and A. B. Waddington.

The minutes of the previous meeting of the board and of the meetings of the executive committee, since the last meeting of the board were presented and approved as was also the report of the treasurer covering receipts and expenditures since the last meeting.

Formal reports of the committee having charge of the meeting of the county agents of the various states in which the association operates, held in Philadelphia, during April, were presented and approved.

F. M. Twining, in charge of field and testing work, made a brief report of the departmental activities since the last meeting of the Board. Over 400 new members have been enrolled during that period.

Legislative conditions, particularly in reference to the tariff and farm relief were reported upon by Frank P. Willits and R. W. Balderston. This problem was discussed at length by the directors.

President H. D. Allebach, briefly reviewed market conditions, the status of supply and demand and the trend of future milk marketing conditions and prices. Since May first, he said in part, production has been above that of last year at this time. The production area continues to move further distant from the large consuming centers. The cities and smaller towns are taking more milk and production near the larger cities is gradually moving to more distant production areas.

"Production on the whole has been increasing but I believe the peak for the season has been reached."

The entire state of Maine has been declared by the Bureau of Animal Industry, to be free of bovine tuberculosis, so far as can be determined by thorough and extensive testing, it was announced recently by the United States Department of Agriculture.

By this recognition, effective May 1st, Maine became the first State in New England and the second in the United States to suppress tuberculosis among its cattle. North Carolina was the first, having been declared free of the disease on October 1, 1928.

The successful outcome of Maine's eradication campaign is the culmination of approximately 12 years' systematic tuberculosis testing. More than 650,000 such tests have been applied to cattle of which about 1 per cent reacted and were removed for slaughter.

Veterinary officials of the Bureau of Animal Industry point out that the clean-up of bovine tuberculosis in Maine has an

important bearing on the campaign for eradicating the disease in the other New England States. Aside from being a producer of dairy products, Maine has for interstate sale many surplus dairy cattle. These cattle are not only acceptable, but are sought by the owners in the less fortunate New England States where the breeding of cattle is not an industry and in which the percentage of infection is higher than it was found to be in Maine.

The eradication of bovine tuberculosis was greatly hastened by favorable legislation enacted in 1925, giving State officials in Maine authority to take up extensive area work. The systematic eradication of the disease has been conducted in cooperation with the United States Department of Agriculture, which announces excellent progress of this work throughout the country.

In some States the campaign against tuberculosis is encountering a much heavier infection than in North Carolina and Maine, but there has been continuous progress.

Considerable discussion was given to a proposed change in the form of contract blanks and by-laws and probable changes in the organization. This proposed change has to do with the active membership standing of dairymen, who have, for one reason or another, discontinued the shipment of milk under the present contract. Further study of the problem will be considered before any definite change in the membership standing will be made.

The purpose of the proposed amendments is to clarify legal structure so as to put it in closer conformity with present day co-operative laws, national and state.

Territorial reports by the various directors of the association indicate a generally satisfactory condition. It was believed that production had about reached the crest for this season. Weather conditions in the various sections of the territory have been irregular. In some heavy rains have prevailed while in others it has been exceptionally dry. The same conditions prevail as to condition of crops.

Various new legislative bills were discussed, particularly the new Pennsylvania law regarding the production and sale of fluid milk and cream, which virtually places the industry in that state under the direction and control of the Pennsylvania Department of Public Health.

Details of the operation of the plan are now being studied by that body.

The need of a more comprehensive study of the present local activities of the association was presented to the Board by H. D. Kinsey and Clayton Reynolds of the Field and Test Department. A very careful survey of membership conditions was presented and discussed by the directors as was also some form of consolidation of the smaller local units. The various proposals will be studied at length by the officers and directors and some program developed that will more fully carry out the activities of the association and its service to its members.

As an immediate result of this discussion the basis of membership representation at the annual meetings of the association was by motion so adjusted that locals having from 25 to 100 members would be entitled to one delegate and locals having a greater membership enrollment would be allowed one delegate for each 100 members, above the original one hundred. These delegates will attend the annual meeting at the expense of the association.

Second Days' Session

Various new legislative bills were discussed, particularly the new Pennsylvania law regarding the production and sale of fluid milk and cream, which virtually places the industry in that state under the direction and control of the Pennsylvania Department of Public Health.

Details of the operation of the plan are now being studied by that body.

The need of a more comprehensive study of the present local activities of the association was presented to the Board by H. D. Kinsey and Clayton Reynolds of the Field and Test Department. A very careful survey of membership conditions was presented and discussed by the directors as was also some form of consolidation of the smaller local units. The various proposals will be studied at length by the officers and directors and some program developed that will more fully carry out the activities of the association and its service to its members.

As an immediate result of this discussion the basis of membership representation at the annual meetings of the association was by motion so adjusted that locals having from 25 to 100 members would be entitled to one delegate and locals having a greater membership enrollment would be allowed one delegate for each 100 members, above the original one hundred. These delegates will attend the annual meeting at the expense of the association.

Various new legislative bills were discussed, particularly the new Pennsylvania law regarding the production and sale of fluid milk and cream, which virtually places the industry in that state under the direction and control of the Pennsylvania Department of Public Health.

Details of the operation of the plan are now being studied by that body.

The need of a more comprehensive study of the present local activities of the association was presented to the Board by H. D. Kinsey and Clayton Reynolds of the Field and Test Department. A very careful survey of membership conditions was presented and discussed by the directors as was also some form of consolidation of the smaller local units. The various proposals will be studied at length by the officers and directors and some program developed that will more fully carry out the activities of the association and its service to its members.

As an immediate result of this discussion the basis of membership representation at the annual meetings of the association was by motion so adjusted that locals having from 25 to 100 members would be entitled to one delegate and locals having a greater membership enrollment would be allowed one delegate for each 100 members, above the original one hundred. These delegates will attend the annual meeting at the expense of the association.

Various new legislative bills were discussed, particularly the new Pennsylvania law regarding the production and sale of fluid milk and cream, which virtually places the industry in that state under the direction and control of the Pennsylvania Department of Public Health.

Details of the operation of the plan are now being studied by that body.

The need of a more comprehensive study of the present local activities of the association was presented to the Board by H. D. Kinsey and Clayton Reynolds of the Field and Test Department. A very careful survey of membership conditions was presented and discussed by the directors as was also some form of consolidation of the smaller local units. The various proposals will be studied at length by the officers and directors and some program developed that will more fully carry out the activities of the association and its service to its members.

As an immediate result of this discussion the basis of membership representation at the annual meetings of the association was by motion so adjusted that locals having from 25 to 100 members would be entitled to one delegate and locals having a greater membership enrollment would be allowed one delegate for each 100 members, above the original one hundred. These delegates will attend the annual meeting at the expense of the association.

Various new legislative bills were discussed, particularly the new Pennsylvania law regarding the production and sale of fluid milk and cream, which virtually places the industry in that state under the direction and control of the Pennsylvania Department of Public Health.

Details of the operation of the plan are now being studied by that body.

The need of a more comprehensive study of the present local activities of the association was presented to the Board by H. D. Kinsey and Clayton Reynolds of the Field and Test Department. A very careful survey of membership conditions was presented and discussed by the directors as was also some form of consolidation of the smaller local units. The various proposals will be studied at length by the officers and directors and some program developed that will more fully carry out the activities of the association and its service to its members.

As an immediate result of this discussion the basis of membership representation at the annual meetings of the association was by motion so adjusted that locals having from 25 to 100 members would be entitled to one delegate and locals having a greater membership enrollment would be allowed one delegate for each 100 members, above the original one hundred. These delegates will attend the annual meeting at the expense of the association.

Various new legislative bills were discussed, particularly the new Pennsylvania law regarding the production and sale of fluid milk and cream, which virtually places the industry in that state under the direction and control of the Pennsylvania Department of Public Health.

Details of the operation of the plan are now being studied by that body.

The need of a more comprehensive study of the present local activities of the association was presented to the Board by H. D. Kinsey and Clayton Reynolds of the Field and Test Department. A very careful survey of membership conditions was presented and discussed by the directors as was also some form of consolidation of the smaller local units. The various proposals will be studied at length by the officers and directors and some program developed that will more fully carry out the activities of the association and its service to its members.

As an immediate result of this discussion the basis of membership representation at the annual meetings of the association was by motion so adjusted that locals having from 25 to 100 members would be entitled to one delegate and locals having a greater membership enrollment would be allowed one delegate for each 100 members, above the original one hundred. These delegates will attend the annual meeting at the expense of the association.

Various new legislative bills were discussed, particularly the new Pennsylvania law regarding the production and sale of fluid milk and cream, which virtually places the industry in that state under the direction and control of the Pennsylvania Department of Public Health.

Details of the operation of the plan are now being studied by that body.

The need of a more comprehensive study of the present local activities of the association was presented to the Board by H. D. Kinsey and Clayton Reynolds of the Field and Test Department. A very careful survey of membership conditions was presented and discussed by the directors as was also some form of consolidation of the smaller local units. The various proposals will be studied at length by the officers and directors and some program developed that will more fully carry out the activities of the association and its service to its members.

As an immediate result of this discussion the basis of membership representation at the annual meetings of the association was by motion so adjusted that locals having from 25 to 100 members would be entitled to one delegate and locals having a greater membership enrollment would be allowed one delegate for each 100 members, above the original one hundred. These delegates will attend the annual meeting at the expense of the association.

Various new legislative bills were discussed, particularly the new Pennsylvania law regarding the production and sale of fluid milk and cream, which virtually places the industry in that state under the direction and control of the Pennsylvania Department of Public Health.

Details of the operation of the plan are now being studied by that body.

The need of a more comprehensive study of the present local activities of the association was presented to the Board by H. D. Kinsey and Clayton Reynolds of the Field and Test Department. A very careful survey of membership conditions was presented and discussed by the directors as was also some form of consolidation of the smaller local units. The various proposals will be studied at length by the officers and directors and some program developed that will more fully carry out the activities of the association and its service to its members.

As an immediate result of this discussion the basis of membership representation at the annual meetings of the association was by motion so adjusted that locals having from 25 to



Ladies' Entertainment at Holstein Convention

The Holstein-Friesian Meeting in Philadelphia, June 4th to 7th, brought together a very interesting group of women from all parts of the country. Several parties motored from as far away as Wisconsin and Oregon.

The Hospitality Committee had a well arranged program for them. Trips to the Curtis Publishing Company, Independence Hall and the seeing Philadelphia trip, which included stops at the Mint and the Art Museum, gave the visitors a comprehensive idea of the city.

After the seeing Philadelphia trip the ladies were taken to the offices of the Philadelphia Inter-State Dairy Council and entertained at a luncheon provided by the Nutrition Department. The following menu was served, and each guest presented with a copy of the recipes used:

Luncheon Menu

Veal and celery salad
Creamed carrots and peas
Graham rolls and butter
Celery stuffed with white cream cheese
Milk
French vanilla Ice Cream with
Crushed strawberries and whipped cream
Home made cake

Veal and Celery Salad

2 cups cold diced veal
1/2 cup celery
2 tbsps. green peppers
1 tsp. salt
4 tsp. white pepper

Dice the celery and peppers. Add to the diced cold meat and season. Marinate for one hour and mix thoroughly with sour cream dressing, just before serving. Serve on lettuce leaves or watercress.

Miss Hanly's Sour Cream Dressing Requires no Cooking

One-half pint thick sour cream
One-fourth pint mayonnaise dressing
Juice of half a small onion
One-half teaspoon lemon juice
Three-fourths teaspoon salt
One-fourth teaspoon mustard
One-eighth teaspoon paprika
One-eighth teaspoon white pepper
Fold all the ingredients into the unbeaten sour cream.

As many of the ninety guests were not acquainted with the Dairy Council, a short program followed the luncheon, to demonstrate its work. "Listening In" was given, as well as a monologue, "The Jewel Lady."

On another day the ladies were invited to accompany the convention on a visit to the Holstein dairy farm of Henry duPont, at Winterthur, Delaware. The trip was made by special boat on the Delaware River to Wilmington. After an inspection of Mr. duPont's herd and buildings, a delightful supper was served to the party of about one thousand guests.

After supper the party was taken to Mr. Pierre duPont's home at Longwood, Penna., to see his large conservatories and gardens. These proved quite as interesting as cows with the dairy men! The peaches ripening under glass, the luscious grapes, the melons hanging in their little swings, the figs and bananas were all a rare treat to see.

Soup

Our grandmothers had very big hearts and felt an interest in their neighbors as well as their households.

A cook book published in Philadelphia in 1855, offers this charitable suggestion in connection with soup making.

"The delicate and proper blending of savours is the chief art of good soup-making. Be sure and skim the grease off the soup when it first boils, or it will not become clear. Throw in a little salt to bring up the scum. Remove all the grease. (This may be best done by boiling the soup the day previous and then the grease all comes off in a cake. To do so is often more convenient if you have bones, etc., which may not keep uncooked) 1 quart of water to 1 lb. meat

is a pretty good rule. If it boils away—soup should not boil hard—add boiling water. The water in which poultry, or fresh meat has been boiled should be saved for gravies or soup next day. If you do not need it the poor do, and in connection with this remark I would say, it is much better for all families to 'seek out' some worthy poor in their own neighborhood, to whom all their food, not presentable again on their own tables shall be sent before it has become fit for slop; and to insist that the cook shall take or send it thither. By this means nearly every poor family could count on at least one meal a day, and that nuisance in our courts and alleys—street begging—be abated."



SILLY GOOSE'S MISTAKE

This play was presented by children from the Hamilton Public School, Philadelphia, at the Holstein-Friesian Convention banquet, June 5th. It is one of the plays suggested for health programs for rural groups.

Some Pointers on the Problem of Serving

Cheese is usually served on a small plate. If one has a cheese dish which is fitted with a cover, this can be used. It is not cut before serving, but is passed to the guest with a small knife, preferably a cheese knife, so that each may cut his own portion.

The butter knife is placed on the bread and butter plate on the right hand side in line with the other silver or diagonally.

Garnishes, such as lemon, parsley, and watercress, are served from the platter to the plate and may be eaten without feeling that you are committing a breach of etiquette.

Fruit served for luncheon dessert should be washed and placed on a plate on which there is a knife. The guest may then eat these cut pieces with their fingers.

Salad, when served with the main course, is placed on the right, as it is more conveniently eaten. This last decision is particularly welcome to individuals who have trailed their cuffs in the gravy reaching for a salad plate on the left-hand side. After all, the simplest form is usually the most elegant in any custom, and serving methods are no exception to this rule.

The thoughtful hostess will watch her guest's plate and see that a second serving of butter is provided in plenty of time for the fresh, hot roll.

Expansion of National Dairy Council

Announcement of the organization of another branch of the National Dairy Council in Minneapolis and St. Paul has just been made, following a meeting of the executive committee for the Twin City Unit, in the offices of the Twin City Milk Producers' Association, Minneapolis, Minn. The executive committee, composed of milk producers and distributors in the Twin Cities, formally approved the outline of educational work proposed by E. R. Quackenbush, the new Secretary of the Unit.

Mr. Quackenbush is not new in Dairy Council work. He organized and for many years served as secretary of the Pittsburgh District Dairy Council, Pittsburgh, Pa. Mr. Quackenbush has also had considerable experience in milk distribution in Pennsylvania and Ohio. Co-operation was promised the new Council unit from all agencies with which it has already been in touch.

Offices of the Twin City Unit will be located at 2694 University Avenue, St. Paul. Members of the executive committee include, H. R. Leonard and I. B. Irwin, representing the Producers' Association; H. Borman and H. Newline, representing Minneapolis milk dealers; and O. Bergand and W. C. Reidel, representing milk dealers of St. Paul.

Another change in the personnel of the Dairy Council on May 1st, is also announced by Dr. C. W. Larson, Director of the National Dairy Council. Mr. I. H. Kauffman, who has served as secretary-manager of the Detroit Dairy and Food Council since September, 1925, resigned May 1st. He will become secretary of the Pittsburgh District Dairy Council. Mr. Kauffman started Dairy Council work in Pittsburgh in December, 1922, and was assistant secretary of that unit before organizing the Detroit Council. He succeeds Mr. H. B. Steele, who left the Dairy Council on May 1st, to take over the duties of secretary of the Dairy Council's Co-operative Sales Company, in which capacity he will still co-operate closely with the Pittsburgh Council.

The Pittsburgh District Dairy Council now covers over one hundred cities and towns in western Pennsylvania, Eastern Ohio, and Northern West Virginia, with a total population of over two million people.

Mr. N. S. Grubbs succeeds Mr. Kauffman as secretary-manager of the Detroit Dairy and Food Council. This unit of the National Dairy Council not only serves Detroit and the suburbs, but supervises educational work at Flint, Jackson and in other Michigan communities. Mr. Grubbs spent most of his life in the state of Pennsylvania, having graduated from the Pennsylvania State College and having further training at the University of Pennsylvania.

For eight years he was county agricultural agent with Pittsburgh the county seat, and during this time was chairman of a group of the milk industry which conducted the first educational campaign on milk consumption in Pittsburgh, leading to the formation of a permanent Dairy Council unit. In recent years Mr. Grubbs has been with the Portland Cement Association in the states of Pennsylvania and Maryland, in which work he has been in close touch with milk producers and distributors and with the dairy councils in Pittsburgh, Philadelphia and Baltimore.

Feeding Fifty Folks More or Less

If you serve refreshments at your meetings, write to the office of The Milk Producers' Review for information about "Feeding Fifty Folks—More or Less," a new booklet giving tested recipes and menu suggestions—everything from light inexpensive refreshments for the afternoon party to a regular banquet.

Teeth and Health

The very close connection between the condition of the teeth and the health of an individual is pointed out in an article in May Harper's, by Dr. Louis I. Dublin and Dr. Thaddeus P. Hyatt, both associated with the Metropolitan Life Insurance Company. They cite several instances of serious illness which was obviously caused by infection from the teeth. They go on to say:

Undoubtedly the most important single factor determining the structure of the teeth and their susceptibility to disease is the influence of diet. Both the physical and chemical properties of food have a direct effect upon dental hygiene. Teeth need the exercise which is supplied by the kind of food; a diet of soft pulpy food weakens them and invites trouble. The teeth and their supporting structures need exercise if under-development of the jaws and a subsequent crowding is to be prevented. On the other hand a fibrous diet, in addition to its stimulating effect upon the process of mastication, serves also in a measure as a cleaning agent. The surfaces of the teeth are polished in the process of chewing. That is probably one reason why the teeth of peasants and primitive people are better than those of modern city dwellers, since their customary diets of hard, coarse food-stuffs, vegetables, and fruit tend to keep teeth in good condition.

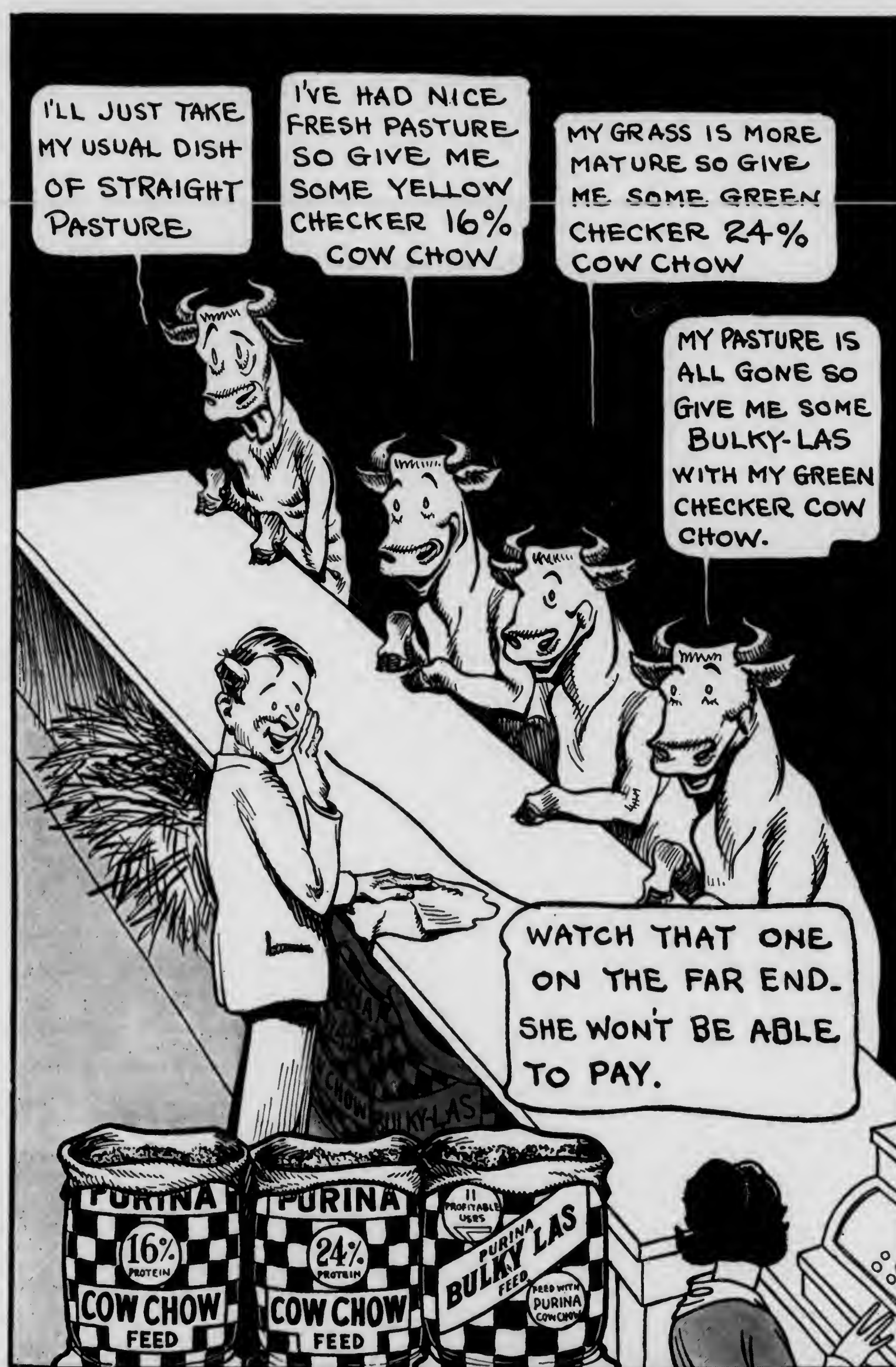
Bone calcification upon which sound teeth depend is apparently due to the presence in the diet of certain vitamins. One investigator (Doctor Mellanby of England) claims that vitamin D is especially important. The effect of most foods upon the teeth, according to her researches, is due to their vitamin D, their salt, or their content. The last-named constituent is probably very important, since recent experiments indicate that inordinate cereal consumption hinders the calcifying process. Ultra-violet radiation, such as is given by sunlight or the mercury vapor lamp, on the other hand acts as a stimulant and has the same influence on calcification as would the ingestion of additional quantities of vitamin D.

Another extremely interesting series of studies has been made by Professor McCollum and his co-workers at Johns Hopkins who concluded that "it is not possible at this time to name any one definite diet which specifically causes dental or oral disease; it would appear that any slight variation in the American diet, which always so dangerously approaches the level of dietary deficiency, might become active at any period of lowered resistance or of physical or nervous stress." Their clinical findings seem to indicate that the type of diet which produced the greatest percentage of dental abnormalities was one deficient in "protein, calcium, and fat soluble A."

At the present time all that we can state with any degree of definiteness is that diet is tremendously important—in fact, probably the most important single factor in determining the structure of teeth and their health. It is also clear that the two periods in which nutrition most strongly influences dental hygiene are the time of gestation, when the diet of the mother determines to a large extent, the tooth structure of the coming child, and the first two years of life, when the diet of the infant undoubtedly affects the healthy formation of the teeth.

The importance of adequate nutrition during the prenatal period and early babyhood, at all events, cannot be over-stressed. Adequate diet and oral cleanliness are, perhaps, the two points which all investigators regard as essential.

The vast majority of people cannot afford restorative dentistry, but preventive work all can afford.



PURINA WITH PASTURE PAYS

Philadelphia Inter-State Dairy Council

The various departments are at your service and will assist you in planning
EDUCATIONAL ENTERTAINMENT

for your Community, Local or Club Meetings. Lecturers, Speakers, Motion Pictures, Lantern Slides, etc.

R. W. BALDERSTON, Sec'y, 219 North Broad Street, PHILADELPHIA

NO. 6 OF A SERIES OF AMCO-FED HERDS



AMCO NOW— MORE MILK all through the year

COWS on pasture milk freely without grain rations—but they don't get as much nourishment from the grass as they give out in the milk. So they take it out of their bodies. Without a grain ration, the cows now milking heavily on pasture will be run down and poor in bone-minerals when they should be in fine condition to meet the demands of fall and winter production.

Feed Amco 18% or 20% Dairy to supplement pasture. These rations supply the right amounts of carbohydrates, proteins, and minerals to build up your herd for higher year-round production. The Open Formulas show you always what you feed. The Flexible Formulas take advantage of market conditions to keep prices low and quality high.

Don't let your herd drop off in condition now that grains are lower in price, and now that you can safely feed a lower protein ration. Feed Amco through the summer, and the production results will justify your far-sightedness.

DIVISION OFFICE: MUNCY, PA.

AMERICAN MILLING CO.,
PEORIA, ILL.

Gentlemen:

For the past two years I have fed Amco 20% Dairy and Amco 12% Fitting Ration to our herd, and have found that the cows are in fine condition for production. The records in the Washington County Cow Testing Ass'n. speak for themselves. My calves are fed on milk and Amco Calf Meal, and they are as fine a bunch as we have ever raised.

I have never fed any feed that put my dry cows and heifers in as fine a condition as Amco 12% Fitting Ration.

Yours truly,
R. L. Carter

AMCO STEPS UP YEARLY PRODUCTION

THE Registered Holsteins in the herd of R. L. Carter and Sons, Hickory, Pa. led the Washington County Cow Testing Association for four consecutive months on AMCO DAIRY RATIONS. There were twenty-six cows in the herd, which made the following averages:

	MILK	FAT
Dec. (1928)	1133 lbs.	36.7 lbs.
Jan. (1929)	1203 "	38.6 "
Feb.	1217 "	40.4 "
Mar.	1316 "	40.9 "

AMCO

FEED MIXING SERVICE
AMERICAN MILLING CO.

EXECUTIVE OFFICES: PEORIA, ILL.

Plants at: Peoria, Ill.; Omaha, Neb.; Owensboro, Ky.
Atlanta Plants at: Powell, Garland, and Worland, Wyo.

Seventh Annual Penn State Dairy Exposition

Under the auspices of the Penn State Chapter of the American Science Association the Seventh Annual Dairy Exposition was held at Penn State College, on May 10th and 11th, 1929.

These sessions afford an opportunity for students in the Dairy section for practical experience and demonstrations in fitting cattle for the show rings, showmanship in the ring as well as that of affording competition and judging of Dairy Products.

The Seventh Annual banquet was held on Saturday evening, May 11th.

There were seventy-one entries in the cattle fitting and showing contest. These were grouped in four general classes, covering the Ayrshire, Guernsey, Holstein and Brown Swiss breeds of cattle.

The first prize in the Fitting Contest of all breeds was won by Fred Houser; Second prize, Karl L. Burchard and third prize by G. W. Munson. The prizes in this event were donated by the Dairyman's Cooperative Sales Co., Pittsburgh, Pa.

In the cattle showing contest, the first prize, a silver cup and a medal, awarded by the Dairyman's League, New York, went to G. W. Munson; the second prize was won by F. H. Giebert and the third prize went to D. W. Flowers.

In the Clean Milk Production Contest, the first prize—\$25.00 and a silver medal presented by the Inter-State Milk Producers Association went to A. C. Hug. Mr. Hug has the unusual distinction of having won this prize in 1928 and will again have his name engraved on the Inter-State Milk Producers' Association Cup. This cup is retained at State College and each year will have engraved upon it the name of the successful winner in this event. The second prize in this contest went to Harold Bradley, while the third and fourth prizes went to H. Ernest Bechdel and Simon R. Snyder. Money prizes amounting to \$85 were presented to the various winners. These were contributed by the Certified Milk Producers' Association of America; John A. Miller, Meadow Brook Farm, Nazareth, Pa., and the Supplee-Wills-Jones Milk Co. The second prize, a Purity Milk Cooler was contributed by the Oakes & Burger Co.

There were 66 contestants in the Dairy Cattle Judging Contest.

In the Amateur group, comprised of those who had never taken part previously sweepstake prizes were awarded as follows: First, Frank A. Higgins; second, Sheldon W. Mosier; third, F. F. Vreeland. In the professional group sweepstake prizes were awarded: First, Russel M. Smith; second, L. M. Zook; third, T. H. Patton.

In the Dairy Products Judging Contest there were fifty-eight contestants. In the Professional group sweepstake prizes were awarded to: first, Charles E. Patterson; second, Gordon Hutchinson; third, Logan Stout. In the Amateur group, the prizes were, first, James Bohm; second, Harry J. Poorbaugh; third, Sheldon Moiser.

The most popular feature of the afternoon's program was a milking contest in which the seven entries were co-eds. These girls demonstrated that they had wide experience in milking. All the girls were awarded boxes of chocolates by the Portland Cement Association. The first prize won by Miss Pauline Myers, was a silver Jersey jug, awarded by the Dairy Science Club of State College.

Annual Banquet

Approximately one hundred and twenty-five members of the group and their guests attended the Seventh Annual Banquet of the Penn State Chapter of the American Dairy Science Association held on the evening of May 11th.

Before repainting—

BEFORE repainting walls, stalls, stanchions or wood-work in your cow-barn, try cleaning the Oakite way. Because Oakite removes dirt and stains so easily and so quickly, you will often find that regular cleaning will postpone repainting for a considerable time.

Our nearest Service Man will gladly tell you how time and money can be saved with Oakite on scores of dairy farm cleaning jobs. Write us and he will call. No obligation of course.

Oakite Service Men, Cleaning specialists are located in the leading industrial centers of the U. S. and Canada.

Manufactured only by
OAKITE PRODUCTS, INC.
34 F. Thames St., NEW YORK, N. Y.

OAKITE

Industrial Cleaning Materials and Methods

BABY CHICKS

Order now for June delivery.
Rhode Island Red Chicks, \$12 per 100; Barred Rocks, \$12 per 100; White Leghorn Chicks, \$9 per 100. Ducks, 30c each, 25 or more, 25c each. Good straight stock, guaranteed delivery.

Satterthwaite's Seed Store
16 N. WARREN ST.
TRENTON, N. J.
Phone 8278

Report of the Field and Test Department Inter- State Milk Pro- ducers' Association

The following statistics show the average operations of all the Inter-State Milk Producers' Association field men in connection with testing, weighing and general membership work, for the month of April, 1929.

No. Tests Made.....	6985
No. Plants Investigated.....	40
No. Membership Calls.....	280
No. New Members.....	
Signed.....	110
No. Cows Signed.....	874
No. Transfers Made.....	16
No. Meetings Attended.....	23
No. Attending Meetings.....	1901

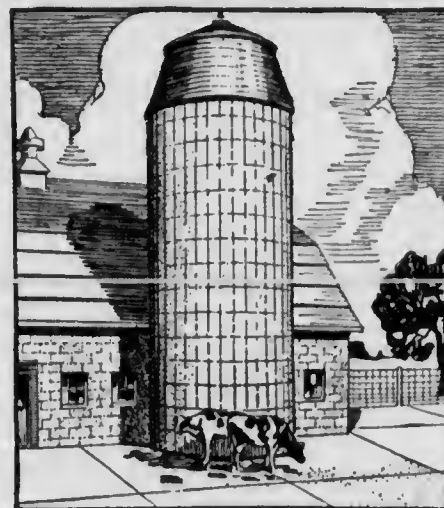
The toastmaster was A. C. Hug, President of the Club and a member of the Senior class. The speakers were: A. A. Borland, Dean R. L. Watts, both of State College. Prof. C. V. Williams, University of Kansas, Mr. C. T. Conklin, Secretary of the Ayrshire Breeders Association. The awarding of the prizes was then made by the various organizations which had contributed them. The officers of the Penn State Dairy Science Association are as follows:

A. C. Hug, President; J. H. Davis, Vice-President; R. M. Smith, Secretary; J. S. Hummer, Treasurer; A. G. Danks, Publicity.

And Blow Her Horn

Wanted—Man for gardener also to take charge of a cow who can sing in the choir and play the organ.—Westmont, (Ill.) Paper.

June Pastures in January



Silage is a winter feed fully as succulent and palatable as that in June pastures.

Eleven per cent More Milk —build a Concrete Silo

Tests at the Vermont Experiment Station showed that a ration including silage produced 11 per cent more milk than the same amount of dry corn fodder.

More milk during season of peak prices means more profit.

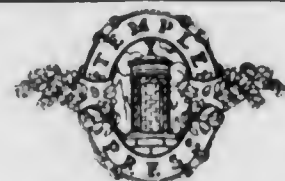
"Concrete Stave Silos." Our free booklet tells the whole story. Write for your copy.

PORTLAND CEMENT ASSOCIATION

A national organization to improve and extend the uses of concrete

1315 Walnut Street, Philadelphia, Pennsylvania

Concrete for Permanence



Let Us Design Your
Stationery

Horace F. Temple
Printer

Bell Phone No. 1
WEST CHESTER, PA.

Quietness and convenience in Philadelphia's Newest Hotel The Robert Morris

17th & ARCH STREETS
Rooms all outside and with bath. All beds equipped with box springs and Nachman inner hair spring mattresses.
RADIO IN EVERY ROOM
Single rooms.... \$3.00 \$3.50 \$4.00
Double rooms... 4.50 5.00 6.00
LUNCHEON .60 and .75
DINNER \$1.00, \$1.15, \$1.50

High grade Guernsey and Holstein Dairy Cows
Car load lots a specialty
JOHN S. MATHIS, New Augusta, Ind.

High Grade Dairy Cows in HIGHTSTOWN, N. J.

We handle all kinds of cattle

Holsteins — Guernseys — Jerseys
A Specialty

All cows tuberculin tested and sold subject to a 60 or 90 day retest and fully guaranteed in every respect.

Free delivery any distance.

B. ZAITZ & SON

202 Mercer Street
Phone 72 Hightstown, N. J.

CHICKS

	Per 100
S. C. White Leghorns.....	\$ 8.00
Barred Rocks and Reds.....	10.00
White Rocks.....	12.00
Mixed.....	8.00
Add 1 cent if less than 100 lots.	
My parent stock is selected and culled for heavy layers. E. B. Thompson and Parks Strain. All good chicks. 100% live delivered. Special Price on Larger Orders. Circular Free. JACOB NEIMOND	
Box N, McAllisterville, Pa. — Penna.	

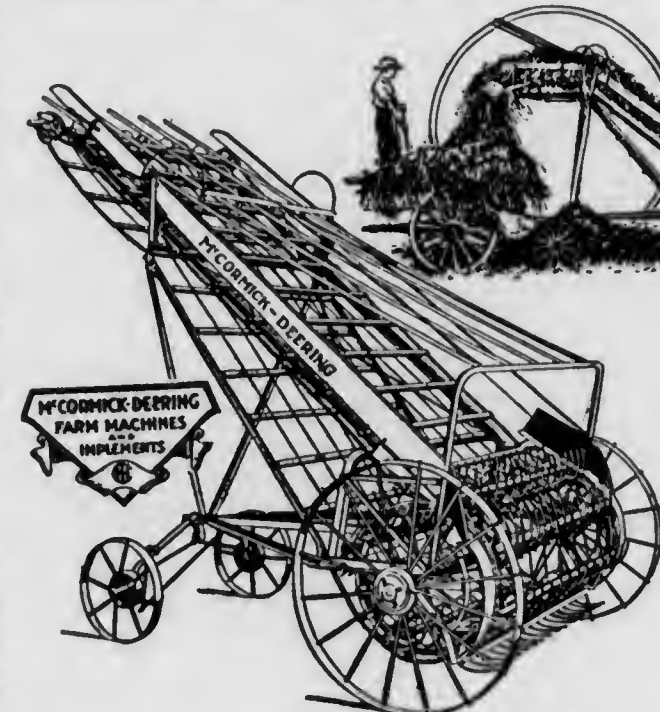
The "E-Z" Shock Absorbing Seat Spring will make the farm machines TRACTORS, etc., ride EASY. It absorbs the Side-shocks that are so injurious to the Spine and nervous system. Fits any machine. Satisfaction guaranteed or money refunded. Hundreds of unsolicited testimonials. Delivered by parcel post. GEO. J. KRUM, Old Chatham, N. Y.

Uncle Ab says that those who better themselves get ahead faster than those who try to better others; maybe that's why professors are underpaid.

GOOD-BYE BLISTERED HANDS
SO LONG BACKACHES

A McCORMICK-DEERING HAY LOADER WILL DO
IT BETTER, EASIER, FASTER AND CHEAPER

This view shows the McCormick-Deering Windrow Hay Loader. Has adjustable section that drops hay close to the rack floor. This valuable feature speeds loading on windy days. As load builds up, the section is raised by a crank to follow the load height. A cleaning cylinder can be furnished for work in short, stubby hay.



The McCormick-Deering Gearless Hay loader is ideal for the farmer with a limited amount of help. Picks hay up from the swath. Adjustable delivery section that enables fast work in high winds. Many other fine features.

If you want to save yourself from backaches and blistered hands and if you want to get the hay stored away in fast time with less labor, expense and help, come in and see us about a McCormick-Deering Hay Loader. These loaders are time-tested, proved machines that have been giving loyal service for many years. Put in a good loader this season—a McCormick-Deering.

THE INTERNATIONAL HARVESTER COMPANY!

OF AMERICA
PHILADELPHIA HARRISBURG BALTIMORE

TRADE
MARK

NICE

REG.
U.S.A.

THE NAME TO GO BY—WHEN YOU GO TO BUY

PAINT AND VARNISHES

Write for color Cards and Booklet "Paint Pointers"
EUGENE E. NICE COMPANY, Inc., PHILADELPHIA

"Holsteins of the Better Sort"

Registered, Blood Tested for Abortion, and from Fully Accredited herds. Some are imported and bred to the World's most famous bulls. Some are bred to our Prince Aaggie Aralia Mead, the full brother of Prince Aaggie of Berylwood the famous \$110,000 Sire. Many have high production records. Moderately priced. WM. H. LANDIS, Breeder and Importer, East Greenville, Pa., Bell Phone Pennsburg 96R21.



CRUMB'S Chain
Hanging
STANCHIONS

Also Water Bowls
Litter Carriers
Feed Carriers
Steel Stalls
Steel Partitions

Tell me what you are most interested in and I will SAVE YOU MONEY.

WALLACE B. CRUMB
Box 2, Forestville, Conn.



100 Real Dairy Cows 100

For sale at all times. Tuberculin tested Holsteins, Guernseys and Jerseys. Real milk producers. Carload lots a specialty. Priced to sell.

See or Write

JACOB ZLOTKIN

Phone 330 FREEHOLD, N. J.

CHERRY HILL CHICKS

S. C. W. Leghorns—Wyckoff Strain....	\$12.00
S. C. Everlay Brown Leghorns.....	12.00
Barred Rocks—Wm. Nace's Select....	14.00
S. C. Rhode Island Reds.....	15.00
Mixed or Broiler Chicks.....	9.00
1/2c less in 500 lots, 1c less in 1,000 lots. 25 chicks add 2c. 50 chicks add 1c. Full count. 100% live arrival guaranteed. Parcel post prepaid. Bank reference. Order direct from this adv. or write for free circular.	

CHERRYHILL POULTRY FARM
Wm. Nace, Prop. McAllisterville, Pa.

Education Pays Farmers

A high school education is worth twice as much as a common school education to the average farmer, and college training worth more than a high school education.

For Fast • Clean • Perfect



Milking

Nothing can
Approach the
Wonderful

new De Laval Magnetic Milker

FROM all sections of the country reports are coming about the new De Laval Magnetic Milker. Never saw such wonderful milking. Pleased beyond expectations. It sure can milk. Runs like a clock. Cows produce more milk with first milking. Milking in half the time. A pleasure to operate.

And so we could go on quoting from pleased users. But such enthusiastic reports are not surprising. The new Magnetic retains all of the good features of De Laval Milkers, which were always considered the world's best, and combines with them greater simplicity and construction and installation, greater convenience, and less power requirements.

The new magnetic pulsation control is absolutely uniform, lightning fast, reliable and efficient. No other milker

has this feature, but electro-magnetic force is used extensively for operating railroad signals and switches, in telephones, pipe organs, and many other places where dependability and efficiency are desired.

In addition, the De Laval Magnetic has fourteen other exclusive features, making it the world's best milker. It milks cows faster and better, produces more and cleaner milk, will save more time and put more pleasure and profit in dairying than can be done in any other way. It is easy to operate, easily cleaned and easy to own, for one can be bought on easy monthly installments. Operates with electricity or gas engines. Made in a variety of sizes for milking one to 1000 or more cows. Send coupon for full information.

Also the New De Laval Utility Milker

— For the Low Price Field

A quality milker for the low price field. Units can be used on existing single pipe line installations, or it can be used as a complete outfit. Made in one and two unit sizes for milking one to 20 cows. Sold on easy terms—send coupon for full information and prices.

Two complete lines of De Laval Separators for every need and purse. Send coupon for full information.

The De Laval Separator Co., Dept. 9841
New York, 165 Broadway
Chicago, 600 Jackson Blvd.
San Francisco, 61 Beale St.

Please send me, without obligation, full information on ☐ Milker ☐ Separator ☐ (Check which)

Name

Town

State

R. F. D. No. Cows

Milk Producers Review

ISSUED MONTHLY IN THE INTEREST OF THE DAIRY FARMER BY THE INTER-STATE MILK PRODUCERS ASSOCIATION, Inc.

Vol. X

West Chester, Pa., and Philadelphia, Pa., July, 1929

No. 3

American Institute of Co-operation Will Hold Session at Baton Rouge, Louisiana

The coming summer session of the American Institute of Cooperation will be held at Louisiana State University, Baton Rouge, Louisiana, from July 29th to August 24th, 1929. This will be its fifth annual summer session.

The meetings this year will be of special interest, as many of the problems that will be discussed will have to do with marketing programs based on the legislative enactment for Farm Relief, as recently passed by the Congress. The list of speakers and educators on the program of the Institute include the outstanding authorities on Co-operation in the United States.

The sessions will be attended by men and women, interested in the cooperative movement, from the United States, and from various countries in Europe, Asia and Latin America.

During this session, it is announced, the organization of the National Chamber of Agricultural Cooperatives will be completed.

Special tours and visits will be made to old time Southern Plantations, to rice and sugar plantations, and the growing industrial and agricultural developments of the new South.

The Louisiana State University and the American Institute of Cooperation will unite in giving academic courses, July 29th to August 24th, for which academic credits will be given those completing the courses satisfactorily. Special courses will be held five days each week for teachers of Vocational agriculture. A special non-credit course in membership relations of cooperatives will be given, with particular emphasis upon local problems.

The Institute is open to everyone interested in agricultural cooperation. Its sessions are attended by managers and officers of cooperatives, research workers, teachers of co-operation, county agents, Vocational teachers and others.

The American Institute of Cooperation is one of the great educational movements of the present day, it is designed to assemble knowledge concerning the co-operative movement in America and in other lands and to make this knowledge available to those who attend its sessions. It is a means of training leaders and workers in the movement and assists educational institutions in improving their teaching courses along these lines.

Program

The program this year will include discussions and studies of practically every problem with which the cooperative movement is related.

Conferences in connection with the University credit courses will be under the direction of Robert D. Maltby, Federal Agent for Agricultural Education in Southern Regions. W. T. Spar-ton and J. A. Linke, Federal Agents for vocational agriculture; Dr. Price, Professor Brannen, vocational officials from Southern States. Representatives from cooperative associations in many sections of the country will also participate

While the particular types of southern agriculture will be discussed to a considerable extent, every phase of the subject will be studied. Dairying is a growing industry in the south and will come in for a considerable share of discussion. Among the outstanding leaders who will take part in the Institute program may be mentioned, Harry Hartke, Covington, Kentucky, president of the National Cooperative Milk Producers' Fed-

Some of the Legal Phases of Cooperatives

By L. S. Hulbert, Division of Cooperative Marketing, United States Department of Agriculture

Co-operation has encountered opposition. It was a departure from old methods and the adherents of the old methods either opposed or were indifferent. The right to co-operate was at one time either denied or held to be of a doubtful legal status. Officers of associations of farmers were in some instances arrested and put in jail. Clayton Act Gave Farmers Right to Organize

During the last few years, due to the

Capper-Volstead Law Authorized Co-operative Marketing

On February 18, 1922, the Capper-Volstead Act became a law. This act specifically declared that persons engaged in the production of agricultural products might act together in the processing and marketing of such products in interstate and foreign commerce, whether their associates were formed with or without capital stock. The act requires that such associations shall be operated for the mutual benefit of their members as producers, and, in addition, provides that no member of an association may have more than one vote, or in lieu thereof that an association shall not pay dividends on stock or membership capital in excess of 8 percent per annum. In addition, an association may not deal in the products of non-members to an amount greater in value than are handled by it for members. In the event an association unduly enhances the price of the product it is engaged in marketing, the Secretary of Agriculture is authorized to file a complaint against the association. At the time of the passage of the Capper-Volstead Act, a farm leader said that "the hot breath of the sheriff will no longer be felt on the backs of fleeing farmers."

Many States Have Authorized Co-operative Marketing

For over twenty years, from time to time, various states have enacted statutes providing for the formation and operation of co-operative associations, which of course have provided authority in the states for co-operation. Although the Capper-Volstead Act, as well as Section 6 of the Clayton Act, have for their object the exemption of co-operative associations from the anti-trust laws, or at any rate making it possible for such associations to operate as long as they function in a normal and proper manner, it should not be assumed that farmers have been singled out or given special privileges, and in this connection, it is well to remember that other groups are exempted from certain Federal statutes; for instance, banks are specifically exempted from the Federal Trade Commission Act.

Co-operative Powers Limited By Statute And By Members

A co-operative association, whether engaged in purchasing or marketing, or both, has only those powers which the state permits it to have, and it must function in the manner agreed to or authorized by the members. For instance, unless the members of an association have agreed to pool, pooling may not be practiced with respect to any of its operations, nor may returns be averaged or losses apportioned unless members have authorized or consented thereto. Likewise, an association may make only those deductions from the returns from products of members that the member has consented to. The fact that an association may need additional money would not authorize the officers of an association to make deductions other than those which the

(Continued on page 6)

Inter-State Milk Producers' Association Statistics

Milk to the amount of 790,248,292 pounds was handled by the Inter-State Milk Producers' Association, Philadelphia, during 1928. This milk had a value of \$28,290,888. The membership distribution and the quantity of milk received from the group in each state in which the Inter-State operates were as follows:

STATE	MEMBERS		MILK MARKETING		VALUE OF MILK
	(Number)	(Per Cent)	(Pounds)	(Per Cent)	
Pennsylvania	13,897	63.66	515,421,712	65.22	\$18,452,097
Maryland	3,996	18.31	115,732,306	14.64	4,143,216
New Jersey	2,263	10.37	88,165,884	11.16	3,156,339
Delaware	1,649	7.55	65,498,424	8.29	2,344,843
West Virginia	21	0.10	5,429,966	0.69	194,393
Virginia	3	0.01	.....	.....	.....
Total	21,829	100.00	790,248,292	100.00	\$28,290,888

The weighted average price of 4 per cent milk f. o. b. Philadelphia in 1928 was \$3.58 per 100 pounds, compared with \$3.578 for 1927, and \$3.322 for 1926.

Of the milk delivered during the last three years, the proportions handled as surplus were as follows: 1926, 10.94 per cent; 1927, 11.74 per cent; 1928, 11.84 per cent.

Available statistics regarding the development of the association since 1920 are given below. Definite data was unavailable prior to 1924.

YEAR	NUMBER		MILK MARKETING	SALES VALUE
	of LOCALS	of MEMBERS	(Pounds)	
1920.....	217	12,538	.....	.....
1921.....	244	14,697	.....	.....
1922.....	251	15,427	.....	.....
1923.....	264	17,680	.....	.....
1924.....	274	19,022	.....	.....
1925.....	275	19,830	.....	.....
1926.....	279	20,820	615,931,400	\$20,461,241
1927.....	281	21,259	806,782,146	28,866,665
1928.....	287	21,829	790,248,298	28,290,888

eration; D. N. Guyer, Chicago, Ill., manager, Pure Milk Association, Chicago, Ill.; Charles W. Holman, Washington, D. C., secretary, National Milk Producers' Federation; Robert W. Balderston, secretary, Inter-State Milk Producers' Association, Philadelphia, Pa.; John D. Miller, Susquehanna, Pa., vice-president, Dairy-men League, Inc., N. Y.; John Brandt, Litchfield, Minn., president Land O'Lakes Creameries, Inc., Columbus, O.; Master National Grange; C. B. Denman, Farmington, Mo., president National

(Continued on page 6)

enactment of statutes and the change in public opinion and many favorable court decisions, agricultural co-operation is now on a substantial legal foundation. The Clayton Act was enacted by Congress in 1914. Section 6 of this act contained a provision authorizing farmers to associate together in non-stock organizations. The section did not specifically refer to marketing, nor did it cover stock associations of farmers. It did, however, distinctly recognize the right of farmers to organize and act together

The Plumstead-Dublin Local Unit of the Inter-State

By F. M. TWING

The Plumstead-Dublin Local Unit of the Inter-State Milk Producers' Association, Bucks County, Pa., is one of the most active and interested locals in our entire territory. As a consequence the members in that territory have a better working knowledge and better understanding of the activities of the Association than the members in sections where no interest is shown.

Too much credit cannot be given to the officers of this local and to the members of the Executive Committee who are all producers who take a great interest in co-operative marketing work. Oliver C. Landis is president, and Amos Bryan, secretary of the Local.

Four meetings have been held each year and much thought given to the arrangement of the program which has resulted in large attendance by the members of the local. At each meeting some special feature of interest to the members has been presented.

At one meeting the new Inter-State Dairy Council play "What's the Big Idea" was put on, with the full program which has accompanied the play throughout the territory. At another meeting Miss Betty Amos of the Nutrition Department of the Philadelphia Inter-State Dairy Council gave a nutrition talk which was a feature and she was asked to come back to a second meeting.

At another meeting, through the cooperation of County Agent Greenwalt, Professor Howard Nissley of State College was secured. He spoke on the needs and benefits of the cooperative marketing movement.

At the last meeting held June 25, 1929, prominent local men took care of the best part of the meeting when the following subjects were discussed by four of them:

Organization, Oliver C. Landis; T. B. Testing Problems, J. Wallace Moyer; Abortion Problems, Willis Hunsberger; Report on Annual Meeting, Isaac S. Gross; Every man handled his subject in a splendid way and it was one of the best meetings of the Local ever held.

At this meeting a trumpet solo was given by Mr. Webster Moyer, son of one of the members. Another feature was a Question Box, questions having been written on slips of paper and handed in at the beginning of the meeting. They were answered by the local Director. Moving Pictures were shown by Philadelphia Inter-State Dairy Council. The three reel film "Weighed in the Balance" told a very interesting story on the advantages of herd improvement.

Each year at the time of the Annual Meeting of the Inter-State Milk Producers Association in Philadelphia a bus is chartered and forty or forty-five farmers and farmers' wives attend the meeting and banquet.

Another thing which may be of interest and perhaps value to other Inter-State territories is that the Plumstead-Dublin local has been formed by combining three other locals and meetings are held alternately at three different places, Plumsteadville, Dublin and Blooming Glenn, Bucks County.

If there is a better Inter-State Milk Producers' Association local with a better informed membership anywhere in the territory, let us hear about it in the columns of the "Review."

Protect Old Silage

Any silage remaining in the silo can be kept over for next winter with a little loss by covering with roofing paper and weighting down to expell and keep out air.

Make Hay In Modern Way

Curing in Windrow Saves from 10 to 40 Per Cent of Labor Required for Cocking

Even in haying, the world keeps moving and one might as well keep with it, is the opinion of H. B. Hartwig of the New York State College of Agriculture, who says that there is no need for the present day farmer to make hay the way his grandfather did.

Many successful farmers have found that to cure hay in the windrow saves from 10 to 40 per cent of the labor required by cocking. This saving makes it possible to get more hay in between rains. Swath-curing clover or alfalfa sacrifices too many leaves and bleaches the hay too much.

Professor Hartwig recommends the following method of hay-making. Cut only after the dew or rain is off. Hay dries more quickly while standing, and molds that make hay dusty do not get started. Allow the hay to wilt in the swath, but do not allow wilting to continue until raking will knock off the leaves. One-half hour to two hours of bright sunshine should be plenty. Next put it in a loose windrow with a side-delivery rake. The better side-delivery rake is the left-hand type, because when driven (after the first round) in the same direction in which the mower goes, the largest number of stems are turned out and the most leaves turned in where they will not dry too rapidly and shatter off. Remember that the leaves carry about 60 per cent of the protein. The right-hand rake may be used if the hay is cut in lands. Begin at the middle with the right-hand rake and work in a direction opposite to the course of the mower.

Give Half Turn

When the hay in the upper portion of the windrow is cured, give the windrow a half-turn with the outer end of the side-delivery rake, so as to bring up for curing that portion which was near the ground. In case of rains repeat this procedure as often as is necessary. Avoid the tedder to save leaves. The hay loader may be used to take the hay up when it is well cured. Be sure that the hay carries no moisture in the form of rain or dew. Such moisture may cause spontaneous combustion.

Chester County Townships Adopt Area Test

Seven and probably nine townships in Chester County, Pa., will enter upon the area test plan for testing of all the herds for tuberculosis early in July. Seven Townships, Upper Oxford, Lower Oxford, East Nottingham, Penn. Franklin, Uwchland, New London and London Britian, have been definitely included and it is believed probable that New Garden and London Grove townships will be included in the number.

Four of these townships will be in the nature of retests. Many of the farmers cattle have already had individual tests, but they have now cooperated under the area plan. This, we understand, means a decidedly lower cost for the dairymen. Individual costs for testing have been as high as \$15.00 per herd, while under the area plan this cost will be reduced to approximately \$2.50.

The management and financial arrangement for this testing program has been under the direction of the farmers themselves. There is a farmers committee in each township. Each township also has its own treasurer to look after the finances of each group.

The number of dairy cattle in the nine townships is said to be close to 15,000.

Bovine Tuberculosis Eradicated From 219 Counties Last Year

706 Counties in 15 States Now Designated as "Modified Accredited Areas"

An official announcement by the Bureau of Animal Industry, United States Department of Agriculture, contains the names of 706 counties and 27 towns that have successfully completed the campaign against bovine tuberculosis. This number is an increase of 219 counties within the last year. The announcement, effective May 1, is officially designated B. A. I. Order 317, copies of which may be obtained on request.

In all of the 706 counties now designated "modified accredited areas," the extent of tuberculosis among the cattle is less than one-half of 1 per cent, as disclosed by the last tuberculin test. In addition all reactors were removed.

"The area plan of tuberculosis eradication," says Dr. A. E. Wight, chief of the Tuberculosis Eradication Division, "has been in effect for some time in the counties and towns listed in the official notice. Necessary precautions to prevent reinfection with the disease will be taken and the required retesting of previously infected herds of cattle will be done. A premium of 10 cents per hundredweight is voluntarily paid by many packing concerns for hogs originating in modified accredited areas, provided that the hogs are properly tattooed to indicate their origin. Another noticeable benefit is the increased demand and better prices for dairy cattle in such areas."

It is noteworthy that the 706 counties are located in 15 different States, Doctor Wight says, thus showing the widespread interest and demand for tuberculosis eradication work.

Dairymen's League Holds Annual Meeting

The Dairymen's League Cooperative Association Inc., held its annual meeting in Syracuse, N. Y., on June 20th, 1929. Upwards of 2000 delegates, members and guests were in attendance.

The days program included general sessions of the delegates, reports of officers and the transaction of routine business.

Officers elected to serve for the ensuing year included: Fred H. Sexauer, Auburn, N. Y., as president; John D. Miller, Susquehanna, Pa., first vice-president; J. D. Beardslee, New Berlin, N. Y., second vice-president; J. A. Coulter, Watertown, N. Y., secretary and Chester Young, Napawock, N. Y., treasurer. Two members of the Executive Committee, H. H. Rathburn, New Hartford, N. Y., and L. A. Chapin, Malone, N. Y., were also re-elected.

On June 19th the Home Department, the Educational Health Department of the Dairymen's League held an all day session. This was represented by the women members of the League who have been greatly interested in the educational and service program of that department. At the evening meeting an elaborate program was presented by children from various Syracuse, N. Y., Public Schools. The second part of the program consisting of vocal selections was presented by members of The Dairymen's League families and others from the New York offices of the League.

Use Good Herd Sire

Every dairyman should be sure that his herd sire has better breeding than the cows in the herd. In no other practical way can the producing capacity of the herd be increased.

Cooperative Buying and Selling in Penna. Totals Over \$48,873,000

Pennsylvania farmers transacted a business of \$48,873,985 through their cooperative buying and selling corporations during 1928, according to a compilation made by the Bureau of Markets, Pennsylvania Department of Agriculture, from the annual reports of such organizations. This is an increase of 2.3 per cent over the 1927 sales of \$47,764,108 and is 38.9 per cent greater than the total farmers' cooperative business of this Commonwealth in 1926. Six large cooperatives whose activities reach into several eastern states, transacted business amounting to \$38,993,800 with their Pennsylvania members during 1928, and 116 local organizations had total sales of \$9,880,185.

The greatest increase in cooperative business in 1928, as compared with 1927, took place in the cooperative marketing of fruits and vegetables. The sale of these products increased \$1,530,863 or 134 per cent. While fruit was marketed in greater volume, most of this increase is attributable to more mushrooms being sold co-operatively.

The sale of milk and milk products decreased 2.4 per cent from the record value of \$38,758,415 established in 1927, although the sales of many fluid milk distributing associations were greater in 1928 than in the preceding year. Most of the local cooperative creameries suffered a loss in volume of business during the year.

There were substantial increases in the volume of livestock, principally dairy cattle, and wool sold co-operatively, but the volume of eggs declined very severely because of the suspension of business by the leading egg marketing organizations.

The sales of farm supplies by cooperative associations amounted to \$8,155,838, being 7.6 per cent larger than the previous year. Most of the county-wide local associations as well as the interstate associations operating in Pennsylvania handled a larger volume of farm supplies in this State during 1928 than they did in the preceding year.

The total Pennsylvania membership of cooperative associations at the close of 1928 consisted of 44,258 farmers. This is a decrease of 2.7 per cent from the total membership of 45,488 at the close of 1927.

Pennsylvania Champion Cow In Embreeville Herd

Noble Majesty's Riotress took the senior four-year old Jersey championship of Pennsylvania, 305-day division, with her recently completed record in her first test. Started on this official test at the age of 4 years and 9 months, the purebred Jersey yielded 586.13 lbs. of butterfat and 10,350 lbs. of milk in the ensuing 30 days. Riotress was with calf 238 days during the ten months. Her production was maintained at a very uniform rate throughout the test, her yield of butterfat being above the 50-lb. mark per month, for nine consecutive months. In her best month her production of butterfat was 68.41 lbs.

In winning her championship, Riotress supercedes Oxford's Barzie of M. B., a cow that held the honor with a record of 566.58 lbs. of butterfat and 11,630 lbs. of milk. This former champion was tested by Pennsylvania State College, at State College, Pa.

Noble Majesty's Riotress was tested by E. B. and C. N. Taylor of Embreeville, Pa. Production testing has been successfully carried on for some time in this splendid herd of 32 purebred Jerseys. At the present there are eight cows on test in the Taylor herd.

Compensation Insurance in Pennsylvania

The status of the farmer under the Pennsylvania Compensation Insurance Law has appeared to be somewhat of a problem ever since the law went into effect. Efforts are being made by a committee of the State Council of Agricultural Organizations to iron out some of the problems involved. Recently this committee, composed of F. P. Willits, former Secretary of Agriculture for Pennsylvania, chairman; John H. Light, of the Pennsylvania State Grange; Clayton Brubaker, of the State Farm Bureau Federation; R. W. Balderston, Secretary Inter-State Milk Producers' Association and R. F. Brinton, President, State Dairymen's Association met in conference with A. B. Taggart, State Commissioner of Insurance and a group of State officials to discuss all phases of the question.

The Pennsylvania State law exempts general farmers, but there is more or less question whether farmers who specialize in one or more other lines; such as fruit growing or dairying, are exempted. Farmers are always subject to law suits for damages in accident cases.

At the urgent solicitation of the Committee, that the rate for compensation insurance, with a minimum charge of \$30.00 be sharply reduced. The Commissioner had made a full study of this matter and he agreed that the \$30.00 minimum be reduced to \$25.00 for the next year as a trial proposition and he further said that if there was a wider use of compensation insurance by the farmers he would consider further reductions in the minimum charge later on.

The evidence of five years experience by the department, covering 25,000,000 of agricultural payrolls written by insurance companies in the State of Pennsylvania was to the effect that a rate of \$1.55 per \$100.00 of payroll was about fair. After carefully reviewing the evidence, the Committee could see no way at present to suggest reductions in these rates, in view of the percentages and cost of losses that have been paid.

It is the hope, however, if a greater proportion of Pennsylvania farmers avail themselves of Compensation Insurance, there may be some further reduction in the rate at a later period.

Two-Thirds of Farms in Penna. Have Automobiles

Approximately two-thirds of the farms in Pennsylvania have automobiles according to recent estimates of the Bureau of Statistics, Pennsylvania Department of Agriculture.

The number of farms having automobiles on January 1 this year was placed at 29,000 compared to 127,480 on the corresponding date a year ago. During this same period, the number of farms having motor trucks increased from 36,650 to 38,170 and the number having tractors from 26,850 to 27,890.

Lancaster county leads all the counties in the State in the number of farms having automobiles as well as the number having motor trucks and tractors, having a total of 6440; York ranks second with 5390; Chester has 4550; Berks county has 4420; Bucks has 4200 while Crawford, Erie, Mercer, Montgomery, Washington and Westmoreland counties have over 3000 each.

Expert on the Job

Turkeys, geese, ducks, hens, roasters, fryers—fresh yard eggs from our own Henry. —Display ad in a Lake Worth (Fla.) paper.

Field Notes

The Cresson Local, a new unit of the Inter-State Milk Producers Association was organized in May at Cresson, Pa. E. Farabaugh was elected president and E. J. Hughes, secretary. Fifteen members were enrolled at the meeting. H. D. Allebach, president of the association was the principal speaker.

These producers market their milk to the Penn Crest Ice Cream Company, Cresson, Pa., who have recently signified their intention of cooperating with the Inter-State Milk Producers Association.

(O. S. H.)

Altoona Dealers Hold Meeting

At a meeting and dinner of the Altoona, (Pa.) Milk Dealers, held on June 11th, at the Penn Alto Hotel, in that city. H. A. Bailey, of the Dairy Extension Department of Penn State College made an interesting address as did also H. D. Allebach, president of the Inter-State Milk Producers Association and Oakley S. Havens, field representative of the same organization.

(O. S. H.)

The Brown Swiss Breeders Association of Central Pennsylvania celebrated their annual field day on June 12th, at the home of Miles Bagshaw, near Hollidaysburg, Pa. About 150 members and guests attended.

Addresses were made by Miles Horst of the Pennsylvania Council of Farm Organizations. He outlined the program and plans for the new building to be erected by the State to house the Pennsylvania Farm products Show, held yearly in that city.

A. A. Borland of Penn State College, made an address on dairy topics while Frank J. Zollers of Hammond, N. Y., a prominent breeder of Brown Swiss cattle, made an interesting address on the records of the Brown Swiss breed.

(O. S. H.)

Salem-Cumberland-Gloucester County Field Day

The Holstein-Friesian Association of Salem, Cumberland, and Gloucester Counties, New Jersey, held a Field Day gathering on the farm of Floyd C. Graf, Monroeville, N. J., on June 19th, 1929.

Rain interrupted the outdoor program but there was an interesting judging contest held in the dairy barn.

R. G. Connelly, Assistant Dairy Specialist of the New Jersey Agricultural College, made an interesting address in the judging of dairy cattle. A group of cows was selected and a boys' judging contest was held. The result of the contest was as follows:

Earl Skinner.....	89.5
Erwin Lawrence.....	85.
Glendon Casper.....	83.5
Edgar Skinner.....	82.
Richard Bassett.....	70.
Roscoe Lawrence.....	68.5
Eugene Bassett.....	65.

Following the judging contest a production guessing contest was held in which the yearly milk production of the various cows was estimated.

General discussion of dairy problems followed.

Notwithstanding unfavorable weather conditions the Field Day was declared to be a great success and plans are under way for holding further Field Day meetings in the same territory.

(J. T. P.)

Uncle Ab says that anybody can criticize; and a wise man won't waste his time at it.

Beetle Quarantine Effective June 15

Preliminary plans for the Japanese beetle control work this summer are practically the same as the activities carried on last year by the State and Federal governments, according to the Bureau of Plant Industry, Pennsylvania Department of Agriculture.

The farm products quarantine will become effective June 15 and the road patrol will be stationed along the highways at the quarantine lines as soon as the beetles make their first appearance.

The general scouting work, carried on for the purpose of finding new infestations, will also start about June 15. The Federal government will do more scouting this year for the Asiatic beetle.

In Gettysburg, York, Lewistown and Sayre, where beetles have been found for the past two years, but not in sufficient numbers to justify including these points in the general quarantine area, careful scouting will be continued and traps used in greater numbers.

Normally, the Japanese beetles do not appear before June 15. Last year, due to unseasonable weather, the beetles did not make their appearance until the second and third weeks in July.

Penna. County Leaders in Crop and Live Stock Production*

Twelve counties in Pennsylvania share leading positions in the production of crops and livestock, according to the 1928 county estimates, as announced by the Bureau of Statistics, Pennsylvania Department of Agriculture.

Adams produced the most apples.

Berks produced the most oats.

Bradford raised the most buckwheat.

It had the highest number of hives of bees, and produced the most honey.

Chester secured the highest yield of hay and oats per acre, and had the highest number of milk cows.

Franklin produced the most rye and peaches.

Greene led in the number of sheep and amount of wool produced.

Lancaster led in total production of corn, wheat, tobacco, and hay; in acre yield of corn; in number of other cattle than milk cows; in total milk produced; in number of chickens on farms and eggs produced; and in number of horses.

Lebanon led in acre yield of potatoes. Lehigh produced the most potatoes and had the highest acre yield of buckwheat.

Montgomery had the highest production of pears.

Philadelphia county produced the most wheat and rye per acre.

York led in amount of farm butter made, and in number of mules and swine.

*EDITOR'S NOTE:—With two exceptions, those of Bradford and Greene, these counties are all located within the Inter-State Milk Producers' Association territory.

National Dairy Exposition

That plans are developing rapidly towards making the St. Louis, Mo., Dairy Exposition one of the best that has ever been given, was announced recently by the exposition authorities and will mark the dawn of a new area in dairying in that section of the country.

Dairymen and dairy organizations have by their cooperation and support made the Exposition deserving of its title "The World's Greatest Dairy Show." It is the one event wherein all agencies interested in dairy production unite for the promotion of a better and more prosperous industry.

The Exposition will be held in a new arena building erected on the State Fair Grounds, October 12th to 19th, 1929. Keep this in mind.

Three Milk Dealers Fined For "Short Changing" Farmers

Three cases have been prosecuted recently in Pennsylvania where milk dealers have "short changed" a large number of farmers by under-reading the tests of milk delivered, the Bureau of Foods and Chemistry, Pennsylvania Department of Agriculture, announced in a recent statement.

"Operators of milk receiving plants who pay milk producers on the basis of butterfat tests which are below what correct tests would show, are guilty of a vicious fraud for which the State Milk Testing Law fixes a fine of \$100 to \$1000, or a 9-month jail sentence," the statement reads.

"Legal action has been taken against the managers of the milk plants in which the unlawful practice of under-reading the Babcock test has been discovered," the Bureau states.

"All plants in Pennsylvania paying for milk on the butterfat basis are required to employ competent and licensed testers. Under-reading as well as over-reading tests within slight variations may be due to lack of care and competency on the part of testers but when the majority of tests at one plant are consistently under-read to the extent of from one-third to one per cent or more, it is clear that such variations are a plain attempt to defraud producers by submitting reports showing low tests and making payments accordingly.

"The Department's representatives are making a thorough check-up of the activities of all the milk plants and the accuracy of tests made by testers and in all cases where discrepancies are found legal actions will be instituted against the persons responsible, and licenses of incompetent and careless testers will be revoked."

Cooperation by Dairy Farmers

Dairy products to the value of \$640,000,000 were marketed through farmer-controlled cooperative associations in 1928. This is an increase of \$20,000,000 over the final estimate for 1927.

The items making up the total are: cooperative creameries, \$245,000,000; milk bargaining associations, \$200,000,000; milk distributing associations, \$150,000,000; cheese factories, \$30,000,000; and cream stations, \$15,000,000.

Nearly a half billion pounds of butter was made in producer-owned plants in 1928. More than 100,000,000 pounds of cheese and about 50,000,000 pounds of milk powder were also manufactured by the cooperatively inclined farmers.

About 2,500 separate farmer-owned dairy enterprises stretching from ocean to ocean, were active during the year.

Present indications are that a larger business will be transacted in 1929 than in 1928.

Three-Fourths of Penna. Cattle TB Tested

More than 900,000 cattle, almost three-fourths of the total in the Commonwealth are now under supervision for the eradication of bovine tuberculosis, according to the Bureau of Animal Industry, Pennsylvania Department of Agriculture. These tested cattle make up 124,000 herds.

In addition to individual herds in the various counties, all the cattle in 926 townships out of a total of 1,569 townships have been tested. Approximately half of these townships are in the 20 counties which have less than one-half of one percent of the disease present and are now known as "modified accredited areas."

INTER-STATE MILK PRODUCERS' REVIEW

Official Organ of the
Inter-State Milk Producers' Association, Inc.

August A. Miller, Editor and
Business Manager
Frederick Shangle, Advertising Manager

Published Monthly by the Inter-State Milk
Producers' Association, Inc.

Business Office
Flint Building, 219 N. Broad St., Phila., Pa.
24 E. Market St., West Chester, Pa.

Editorial and Advertising Office
Flint Building, 219 N. Broad St., Phila., Pa.
Bell Phone, Locust 5391 Locust 5392
Keystone Phone, Race 5344

Printed by Horace F. Temple, Inc.
West Chester, Pa.

Subscription
50 cents a year in advance
Advertising rates on application

*Entered as second-class matter, June 3, 1920,
at the post office at West Chester, Pennsylvania
under the Act of March 3, 1879.



It is time for milk producers in the Philadelphia Milk Shed to consider their plans of production during October, November and December. The average production of these months, together with those of the same period in the last two years, will, it is believed, be again used to establish the average basic production quantity, under the Philadelphia Selling Plan for 1930. While this program has not been definitely decided upon, it is believed that the practice will continue as heretofore.

The consuming public demands a regular supply of fluid milk and efforts should be made to maintain such a supply. Any decrease in production during the fall months, will, under the present plan, decrease the average basic quantity on which producers will be paid next year.

There has been a great deal of interest in the naming of the proposed members of the new Federal Farm Board by president Herbert Hoover.

The various co-operative farm marketing organizations have been asked for suggestions as to the proposed make up of this Board. Its members will represent the various farm marketing groups in the United States, together probably with a representative of expert banking and general business representatives.

As we go to press, it has been announced, through the medium of the public press that President Hoover has made a number of definite selections. These include among others:

Alexander H. Legge, of the International Harvester Co., Chicago, Ill., who is expected to serve as chairman and represents general business. James C. Stone, Lexington, Ky., vice president of the Burley Tobacco Growers' Association; C. E. Denman, president of the National Live Stock Protective Association and Charles C. Teague, Los Angeles, Cal., president of the California Citrus League, Carl Williams, Oklahoma City, Okla., representing cotton; and W. L. Shilling, president of the Twin Cities Milk Producers' Association, Minneapolis, Minnesota; W. S. Moscript, of Lake Elmo, Minn., secretary-treasurer of the Twin Cities Milk Producers' Association was named as the dairy member of the Board, but has, we understand, definitely refused to accept the appointment.

The Federal Farm Board will consist of nine members. Eight appointed by the President, with the approval of the United States Senate, the Secretary of Agriculture in the Hoover Cabinet will be the 9th member of the Board.

This Board, when appointed and organized will have a stupendous task before

it. It cannot be expected to act quickly. It will require a thorough research of each problem that comes before it. A thorough development of its procedure under the Federal Farm Board Act will have to be studied and analyzed before definite policies can be put in force.

Co-operatives can hardly expect prompt action and we must await a time, with patience, until its actual development can become accomplished.

Arthur M. Hyde, secretary of agriculture in an address recently, before the National Education Association at Atlanta, Ga., said in part with reference to this matter:

"Rome was not built in a day, nor will agriculture be emancipated over night. Much depends upon the co-operative associations which are already formed or will hereafter be formed. The board cannot function on its own account. The initiative lies with the farm co-operative associations.

The success of the farm bill depends upon team-work between the board and the farm co-operatives, in whose aid the legislation was designed and around whom it is built."

JULY MILK PRICES Inter-State Milk Producers' Association, Inc.

The price paid for basic milk during July, 1929, will, subject to market conditions, be the same as quoted for June, 1929. Milk sold to co-operating dealers will be paid for on the basic and surplus plan.

Class I Surplus milk will be paid for by co-operating dealers on the average price of 32 score, solid pack butter, New York City, plus 20 percent. Class II Surplus has been eliminated, under the Philadelphia Selling Plan, during the remainder of the year.

Dr. C. W. Larson Resigns As Director of National Dairy Council

At a meeting of the Executive Committee of the National Dairy Council, held in Chicago, Ill., last month, Dr. C. W. Larson, managing director of that organization, tendered his resignation as managing director.

Dr. Larson, who prior to becoming associated with the National Dairy Council, was Chief of the Federal Bureau of Dairy Industry, Washington, D. C., will become associated as an executive officer of the new commercial dairy enterprise, now in the process of formation. "The only reason for my resignation," said Dr. Larson, "is to accept an unusual opportunity which has presented itself. His resignation became effective July 1st.

JUNE BUTTER PRICES			
	Philadelphia	New York	Chicago
1	44	43	42 1/2
2	44	43	42 1/2
3	44	43	42 1/2
4	44	43	42 1/2
5	44	43	42 1/2
6	44	43	42 1/2
7	44 1/2	43 1/2	42 1/2
8	44 1/2	43 1/2	42 1/2
9	44 1/2	43 1/2	42 1/2
10	44 1/2	43 1/2	42 1/2
11	44 1/2	43 1/2	42 1/2
12	44 1/2	43 1/2	42 1/2
13	45	44	42 1/2
14	45	44	42 1/2
15	45	44	42 1/2
16	45	44	42 1/2
17	45	44	42 1/2
18	45	44	42 1/2
19	45	44	42 1/2
20	45	44	42 1/2
21	45	44	42 1/2
22	44 1/2	43 1/2	42
23	44 1/2	43 1/2	42
24	44 1/2	43 1/2	42
25	44 1/2	43 1/2	42 1/2
26	44 1/2	43 1/2	42 1/2
27	44 1/2	43 1/2	42 1/2
28	44 1/2	43 1/2	42 1/2
29	44 1/2	43	41 1/2

Directors Will Meet

The Board of Directors of the Inter-State Milk Producers' Association, will hold its regular bi-monthly meeting on July 25th and 26th, in the offices of the association in Philadelphia.

Market Conditions

H. D. ALLEBACH

The production of milk during the month of May exceeded that of last May by something between five and eight per cent. Production in the beginning of June exceeded that of May, according to all reports. The weather conditions the latter part of June helped to take care of practically all the increase we had in production and we wound up the month with a normal market.

Of course our increase in production, as we stated in the last issue of the REVIEW, was caused by the falling off of our production last fall and we find this to be true almost every year, so I am at this time asking our members to see that you do not let the same thing happen this fall.

You should now prepare for production during October, November and December. The average of these three months will be used in your basic for next year. No doubt it will be used in a three-year average, yet nothing definite has been agreed upon as yet. Regardless of how it is used, it will be used in computing your basic for 1930.

Of course this does not mean that you should go to extremes in production but you should not let your fall production fall below that of previous years, and, if anything, it should be increased a little. A regular supply is what we are after, to meet the needs of the consuming public.

On July first Harbison Dairies opened their new plant at Carlisle, Pa., and transferred quite a bit of milk there from their plant at Brandtville. They have not taken on any new patrons as yet at the new plant, which was built partly to relieve the congestion at Brandtville and a lot of milk was being shipped from the Carlisle section to that plant. Of course they will take on some new patrons a little later.

The Supplee-Wills-Jones Co.'s new plant at Martinsburg, W. Va., is under construction. This is to relieve some of the congestion at their Hagerstown, Md., plant, which is now being hauled from the Martinsburg section. They will take on some new patrons after it is open.

The Supplee-Wills-Jones Milk Co. has now purchased the ground and have a title for it and plans are being drawn for their Lewistown, Penna., plant. Bids will be given out in the near future for this plant. This plant will not be opened before some time this fall. Just when that will be has not yet been mentioned.

June Milk Prices

Fluid milk prices under the Philadelphia Selling Plan, will be paid for by co-operating dealers, for the month of June, on the following basis.

Grade B Market Milk (basic quantity average) three per cent butter fat content, f.o.b. Philadelphia, is quoted at \$3.29 per hundred pounds or 7.1 cents per quart.

Grade B Market Milk, (basic average) three per cent butter fat content, delivered at receiving stations in the 51 to 60 mile zone, for June, is quoted at \$2.71 per hundred pounds. The usual butter fat

differentials and freight rate variations, applying to other mileage points in the territory are shown by quotations on page 5, of this issue of the Milk Producers' Review.

The price of "A" Milk under the usual butter fat differentials and prices in the different mileage zones in the territory and at "A" stations for May are quoted on page 5 of this issue of the Milk Producers' Review.

Surplus Prices

The price of Class I surplus milk for June, three per cent butter fat content delivered f. o. b. Philadelphia is quoted at \$2.23 per hundred pounds of 4.8 cents per quart. The price of Class I surplus of the same butter fat content, at receiving stations, is \$1.66 per hundred pounds.

The price of Class II surplus, three per cent butter fat content for June, f. o. b. Philadelphia, is quoted at \$1.89 per hundred pounds or 4.05 cents per quart. The price of Class II surplus, at all receiving stations, of the same butter fat content is quoted at \$1.31 per hundred pounds.

June Butter Prices

Creamery butter holdings in cold storage plants during May showed a decided upward trend. On June 12th government reports showed holding in cold storage as aggregating 28,428,000 pounds on June 1st as compared with 15,952,000 on June 1, 1928 and a five year average of 21,460,000 pounds.

Notwithstanding the increased quantity of storage butter the market held comparatively strong. There has been a good demand and prices showed but little variation, even in the face of a higher five year average.

Prices on the whole ruled steady. Ninety-two score butter, solid packed, New York City opened the month at 43 cents. This quotation held for about a week, after which a 1/2 cent advance was reported. This price carried along until mid month when another 1/2 cent advance to 44 cents was reported. Prices then remained unchanged until the closing week when a decline of 1/2 cent to 43 1/2 was reported.

Until the closing week of the month there was a consistently good demand. Butter was going into consumption freely and the market on the whole exhibited more or less strength. During the closing week of the month, however, trade activities fell off, a nervous undertone appeared and with the tendency toward accumulation prices showed slight but more or less general declines. Following these price declines there was evidence of some slight gain in confidence and at the close of the week the market situation was again regarded as steady.

The average price of 92 score butter, solid packed, New York City, on which the surplus price for June was computed was .4367 cents, as compared to .4376 cents in May and .4409 cents, the average price quoted for the same month in 1928.

New Maryland Champion

A junior two year old Guernsey at White Hall Farms, Elkton, Maryland, has just become Maryland state champion in the farmers' division of The American Guernsey Cattle Club. White Hall's Proud Lady 201889, new retainer of the title, produced 8533.5 pounds of milk and 387.1 pounds of butter fat in 305 days.

Pennsylvania Leads in Egg Production

According to recent statistics the State of Pennsylvania led all other states in the Union in the value of eggs produced in 1928. Its total production was 117,500,000 dozens valued at \$42,025,000. This exceeds the value of the next highest state by over \$2,000,000.

LATEST MARKET PRICES

The basic price, quoted below for June, 1929, is to be paid by co-operating dealers on the average basic quantity established by each producer. For all milk bought in excess of the basic amount, the surplus price, quoted below for the month of June, 1929, are to be paid. Surplus milk will be paid for under two classifications. Class I, represented by the amount of milk in excess of the basic average and equal to it in amount, which will be paid for by co-operating dealers on the basis of 92 score butter, solid pack, New York City, plus 20 per cent and Class II surplus represented by milk shipped in excess of the first surplus amount, which will be paid for on a flat average 92 score butter price for the month.

The following quotations are based on 3 per cent butterfat content milk and a differential of 4 cents for each tenth point and 2 cents for each half-tenth point, up or down, and are for all railroad points (inland stations carry differentials subject to local arrangements.)

PHILADELPHIA SELLING PLAN
INTER-STATE MILK PRODUCERS' ASSOCIATION PRICES
This price list is issued with the understanding that it is not to be used by the producers and that all buyers using it as a basis of payment to producers, shall in addition thereto make the following contributions and payments:

(1) To the Philadelphia Inter-State Dairy Council 2c per 100 pounds (46 1/2 quarts) of all milk purchased from any producer at prices listed herein.
(2) To the Inter-State Milk Producers' Association 2c per 100 pounds (46 1/2 quarts) of all milk bought from members of said Association.
(3) To the Philadelphia Inter-State Dairy Council 2c per 100 pounds (46 1/2 quarts) of all milk bought from other producers at prices listed herein.

The funds so derived are to be used by the recipients for improving standards of quality in production and distribution of milk in the Philadelphia Milk Shed, for improvements and stabilization of market and for an educational campaign advertising the food value of dairy products.

BASIC PRICE
June, 1929
F. O. B. Philadelphia
Grade B Market Milk

Test Per Cent 100 Lbs. Price Per Qt.
3.1 2.9 7.1
3.05 3.1 7.15
3.1 3.1 7.2
3.15 3.15 7.25
3.2 3.2 7.3
3.25 3.25 7.35
3.3 3.3 7.4
3.35 3.35 7.45
3.4 3.4 7.5
3.45 3.45 7.55
3.5 3.5 7.6
3.55 3.55 7.65
3.6 3.6 7.7
3.65 3.65 7.75
3.7 3.7 7.8
3.75 3.75 7.85
3.8 3.8 7.9
3.85 3.85 7.95
3.9 3.9 8.0
4.0 4.0 8.1
4.05 4.05 8.15
4.1 4.1 8.2
4.15 4.15 8.25
4.2 4.2 8.3
4.25 4.25 8.35
4.3 4.3 8.4
4.35 4.35 8.45
4.4 4.4 8.5
4.45 4.45 8.55
4.5 4.5 8.6
4.55 4.55 8.65
4.6 4.6 8.7
4.65 4.65 8.75
4.7 4.7 8.8
4.75 4.75 8.85
4.8 4.8 8.9
4.85 4.85 8.95
4.9 4.9 9.0
4.95 4.95 9.05
5.0 5.0 9.1
5.05 5.05 9.15
5.1 5.1 9.2
5.15 5.15 9.25
5.2 5.2 9.3
5.25 5.25 9.35
5.3 5.3 9.4
5.35 5.35 9.45
5.4 5.4 9.5
5.45 5.45 9.55
5.5 5.5 9.6
5.55 5.55 9.65
5.6 5.6 9.7
5.65 5.65 9.75
5.7 5.7 9.8
5.75 5.75 9.85
5.8 5.8 9.9
5.85 5.85 9.95
5.9 5.9 10.0
5.95 5.95 10.05
6.0 6.0 10.1
6.05 6.05 10.15
6.1 6.1 10.2
6.15 6.15 10.25
6.2 6.2 10.3
6.25 6.25 10.35
6.3 6.3 10.4
6.35 6.35 10.45
6.4 6.4 10.5
6.45 6.45 10.55
6.5 6.5 10.6
6.55 6.55 10.65
6.6 6.6 10.7
6.65 6.65 10.75
6.7 6.7 10.8
6.75 6.75 10.85
6.8 6.8 10.9
6.85 6.85 10.95
6.9 6.9 11.0
6.95 6.95 11.05
7.0 7.0 11.1
7.05 7.05 11.15
7.1 7.1 11.2
7.15 7.15 11.25
7.2 7.2 11.3
7.25 7.25 11.35
7.3 7.3 11.4
7.35 7.35 11.45
7.4 7.4 11.5
7.45 7.45 11.55
7.5 7.5 11.6
7.55 7.55 11.65
7.6 7.6 11.7
7.65 7.65 11.75
7.7 7.7 11.8
7.75 7.75 11.85
7.8 7.8 11.9
7.85 7.85 11.95
7.9 7.9 12.0
7.95 7.95 12.05
8.0 8.0 12.1
8.05 8.05 12.15
8.1 8.1 12.2
8.15 8.15 12.25
8.2 8.2 12.3
8.25 8.25 12.35
8.3 8.3 12.4
8.35 8.35 12.45
8.4 8.4 12.5
8.45 8.45 12.55
8.5 8.5 12.6
8.55 8.55 12.65
8.6 8.6 12.7
8.65 8.65 12.75
8.7 8.7 12.8
8.75 8.75 12.85
8.8 8.8 12.9
8.85 8.85 12.95
8.9 8.9 13.0
8.95 8.95 13.05
9.0 9.0 13.1
9.05 9.05 13.15
9.1 9.1 13.2
9.15 9.15 13.25
9.2 9.2 13.3
9.25 9.25 13.35
9.3 9.3 13.4
9.35 9.35 13.45
9.4 9.4 13.5
9.45 9.45 13.55
9.5 9.5 13.6
9.55 9.55 13.65
9.6 9.6 13.7
9.65 9.65 13.75
9.7 9.7 13.8
9.75 9.75 13.85
9.8 9.8 13.9
9.85 9.85 13.95
9.9 9.9 14.0
9.95 9.95 14.05
10.0 10.0 14.1
10.05 10.05 14.15
10.1 10.1 14.2
10.15 10.15 14.25
10.2 10.2 14.3
10.25 10.25 14.35
10.3 10.3 14.4
10.35 10.35 14.45
10.4 10.4 14.5
10.45 10.45 14.55
10.5 10.5 14.6
10.55 10.55 14.65
10.6 10.6 14.7
10.65 10.65 14.75
10.7 10.7 14.8
10.75 10.75 14.85
10.8 10.8 14.9
10.85 10.85 14.95
10.9 10.9 15.0
10.95 10.95 15.05
11.0 11.0 15.1
11.05 11.05 15.15
11.1 11.1 15.2
11.15 11.15 15.25
11.2 11.2 15.3
11.25 11.25 15.35
11.3 11.3 15.4
11.35 11.35 15.45
11.4 11.4 15.5
11.45 11.45 15.55
11.5 11.5 15.6
11.55 11.55 15.65
11.6 11.6 15.7
11.65 11.65 15.75
11.7 11.7 15.8
11.75 11.75 15.85
11.8 11.8 15.9
11.85 11.85 15.95
11.9 11.9 16.0
11.95 11.95 16.05
12.0 12.0 16.1
12.05 12.05 16.15
12.1 12.1 16.2
12.15 12.15 16.25
12.2 12.2 16.3
12.25 12.25 16.35
12.3 12.3 16.4
12.35 12.35 16.45
12.4 12.4 16.5
12.45 12.45 16.55
12.5 12.5 16.6
12.55 12.55 16.65
12.6 12.6 16.7
12.65 12.65 16.75
12.7 12.7 16.8
12.75 12.75 16.85
12.8 12.8 16.9
12.85 12.85 16.95
12.9 12.9 17.0
12.95 12.95 17.05
13.0 13.0 17.1
13.05 13.05 17.15
13.1 13.1 17.2
13.15 13.15 17.25
13.2 13.2 17.3
13.25 13.25 17.35
13.3 13.3 17.4
13.35 13.35 17.45
13.4 13.4 17.5
13.45 13.45 17.55
13.5 13.5 17.6
13.55 13.55 17.65
13.6 13.6 17.7
13.65 13.65 17.75
13.7 13.7 17.8
13.75 13.75 17.85
13.8 13.8 17.9
13.85 13.85 17.95
13.9 13.9 18.0
13.95 13.95 18.05
14.0 14.0 18.1
14.05 14.05 18.15
14.1 14.1 18.2
14.15 14.15 18.25
14.2 14.2 18.3
14.25 14.25 18.35
14.3 14.3 18.4
14.35 14.35 18.45
14.4 14.4 18.5
14.45 14.45 18.55
14.5 14.5 18.6
14.55 14.55 18.65
14.6 14.6 18.7
14.65 14.65 18.75
14.7 14.7 18.8
14.75 14.75 18.85
14.8 14.8 18.9
14.85 14.85 18.95
14.9 14.9 19.0
14.95 14.95 19.05
15.0 15.0 19.1
15.05 15.05 19.15
15.1 15.1 19.2
15.15 15.15 19.25
15.2 15.2 19.3
15.25 15.25 19.35
15.3 15.3 19.4
15.35 15.35 19.45
15.4 15.4 19.5
15.45 15.45 19.55
15.5 15.5 19.6
15.55 15.55 19.65
15.6 15.6 19.7
15.65 15.65 19.75
15.7 15.7 19.8
15.75 15.75 19.85
15.8 15.8 19.9
15.85 15.85 19.95
15.9 15.9 20.0
15.95 15.95 20.05
16.0 16.0 20.1
16.05 16.05 20.15
16.1 16.1 20.2
16.15 16.15 20.25
16.2 16.2 20.3
16.25 16.25 20.35
16.3 16.3 20.4
16.35 16.35 20.45
16.4 16.4 20.5
16.45 16.45 20.55
16.5 16.5 20.6
16.55 16.55 20.65
16.6 16.6 20.7
16.65 16.65 20.75
16.7 16.7 20.8
16.75 16.75 20.85
16.8 16.8 20.9
16.85 16.85 20.95
16.9 16.9 21.0
16.95 16.95 21.05
17.0 17.0 21.1
17.05 17.05 21.15
17.1 17.1 21.2
17.15 17.15 21.25
17.2 17.2 21.3
17.25 17.25 21.35
17.3 17.3 21.4
17.35 17.35 21.45
17.4 17.4 21.5
17.45 17.45 21.55
17.5 17.5 21.6
17.55 17.55 21.65
17.6 17.6 21.7
17.65 17.65 21.75
17.7 17.7 21.8
17.75 17.75 21.85
17.8 17.8 21.9
17.85 17.85 21.95
17.9 17.9 22.0
17.95 17.95 22.05
18.0 18.0 22.1
18.05 18.05 22.15
18.1 18.1 22.2
18.15 18.15 22.25
18.2 18.2 22.3
18.25 18.25 22.35
18.3 18.3 22.4
18.35 18.35 22.45
18.4 18.4 22.5
18.45 18.45 22.55
18.5 18.5 22.6
18.55 18.55 22.65
18.6 18.6 22.7
18.65 18.65 22.75
18.7 18.7 22.8
18.75 18.75 22.85
18.8 18.8 22.9

Does a Flyless Cow produce more Milk?

The difference between Klip and every other cow spray is that Klip alone is guaranteed to keep cows free of flies while milking and for long periods in the pasture. Increased milk yield depends largely on the comfort of animals in the field. If flies decrease milk production even 25% as a recent article in "Certified Milk" says, they may be costing you \$50.00 a month.

Don't take our word for it—prove it yourself.

For five years three famous state entomologists and a state Agricultural Experiment Station worked developing Klip. This new cattle spray is made by the makers of Flit, the world's greatest household insecticide. Klip kills every fly it hits. In agricultural experiment station tests it was proved to be the one spray that gives complete protection against cow flies (horn flies) not only in stable but in pasture as well.

It can't taint milk, can't stain, and is absolutely harmless to cattle, even if licked. Use it on cows, horses and mules.

On sale at Hardware, Feed, and Farm Supply Dealers in one gallon cans (\$2.50) and five gallon cans (\$11.25). If your dealer hasn't got his supply yet, order direct from us. Be sure to send us your dealer's name when ordering. Address: Stanco, Inc., 2 Park Ave., New York City.

KLIP

NO FLIES ON US

Reg. U. S. Pat. Off.

STANCO, INC., Dairy Division, 2 Park Ave., New York City
I'm willing to be shown. You can send me a pint of Klip FREE, and I'll try it.

I hope.....milk cows.....horses and mules.....other stock.

My name.....County.....

Address.....

My Dealer is.....

His Address is.....

A TUBULAR
High Pressure
MILK COOLER
Reasonably Priced

Rolls-Royce quality at Ford prices! A genuine tubular, high pressure milk cooler of the type endorsed by all authorities. Easily cleaned. Sanitary. Built of copper and bronze throughout. Nothing to rust or wear out. Made in two sizes.

ORIOLE MILK COOLER

ORIOLE coolers are made in two sizes. Size A cools 35 gallons of milk an hour and is priced at \$34.50. Size B cools 50 gallons an hour and is priced at \$40.50. Both sizes consist of 1 1/2" diameter seamless copper tubes spaced so that cleaning between them is easy. A lip, formed into the tubes when made, runs along their under side, providing a guide for the flow of milk from one tube to the next. The water flows through these V shaped flanges as well as the balance of the tube interior so that all possible cooling surface is utilized. This space is "dead metal" on other tubular or corrugated coolers.

Troughs are removable without tools. Reservoir, troughs, and all other parts have only smooth, round, tinned surfaces—no square corners.

The Oriole is guaranteed without restriction against imperfect workmanship or materials and to withstand without leakage a pressure of 75 pounds to the square inch. Ask us for FREE Bulletin No. 90.

CHERRY-BURRELL CORPORATION

2324 Market St., Philadelphia
Russell and Ostend Sts., Baltimore
1130 Penn Ave., Pittsburgh

54 West Maple, Columbus
1615 East 25th St., Cleveland
345 West Jefferson St., Syracuse

Some of the Legal Phases of Co-operatives

(Continued from Page One)

member had authorized. If an association is using contracts, it is suggested that they contain a provision authorizing the association to enter into contracts with new members differing in form from those previously employed, provided that the old members are given an opportunity to sign the new form of contract. By this means an association may make necessary changes in its contract without the necessity of signing up members who have previously entered into contracts with it.

Long-Term Contracts Adopted

There is a tendency for associations to use long-term contracts containing a withdrawal provision. The withdrawal provision, as the term implies, simply provides a means for terminating the contract before its expiration date, but it has no other effect on the contract. Sometimes co-operative contracts are described as "binding iron-clad contracts." This designation is misleading and inaccurate, because no contract is a contract unless it is binding and enforceable.

Contracts Or By-Laws Should State Conditions of Release

It is advisable for an association to include a provision in its contracts or by-laws that the release of a member should have no effect upon the contracts of other members. In some instances the courts have indicated that the release of some members might release others, and so it is advisable to include a provision in the contract or by-laws regarding this matter.

Supreme Courts Have Upheld Co-operative Statutes

On February 20, 1928, the Supreme Court of the United States passed upon the first co-operative case that has come before it. (Liberty Warehouse Co. vs. Burley Growers' Co-operative Ass'n., 48 Sup. Ct. 291). The court upheld the contracts of the association and the co-operative statute under which it was incorporated. The tenor of the opinion is distinctly favorable to co-operation. Among other things the court said: "Undoubtedly the state had power to authorize formation of corporations by farmers for the purpose of dealing in their own products." The court approvingly referred to the Capper-Volstead Act. The supreme court of over twenty-four states have also passed upon co-operative contracts and statutes and have repeatedly upheld them.

Good management, business-like methods, and efficiency are indispensable requisites to the success of any co-operative undertaking. Co-operation is simply working together for the good and advantage of all concerned, and any institution founded upon this principle that is well managed and meeting a real need should succeed.

Institute of Cooperation Will Hold Session

(Continued from Page One)

Livestock Producers Association; Chris. L. Christenson, Washington, D. C.; Division of Cooperative Marketing, United States Department of Agriculture; J. E. Wells, Jr., James S. Hatchcock and J. W. Jones, Division of Cooperative Marketing, Nils A. Olsen and T. B. Manney, Division of Agricultural Economics, United States Department of Agriculture.

Full details of the general program of the tours and visits as well as the various studies for academic credits may be obtained by addressing Charles W. Holman, secretary, American Institute of Cooperation, 1731 Eye Street, N. W., Washington, D. C.

Eastern States Farmers' Exchange

Summer Seeding

Agronomists and county agents throughout the East are ready to make specific recommendations to each farmer planning to sow alfalfa seed this summer. Even the farmers who have previously met with success in sowing alfalfa will profit by listening to the advice which these men can offer, advice based on the experience of hundreds of farmers in their own and neighboring states.

The Eastern States Farmers' Exchange is ready to ship promptly both Certi-Seed Alfalfa which "Grows into Profit," and the Eastern States Fertilizers which "Fill a Growing Need." The future of your summer seeding depends to a great extent on the seed and the plant nutrients which you place in the properly prepared seed bed. Why take chances with supplies which may be less than thoroughly satisfactory?

Find out promptly what you are going to need and send in your order as soon as possible.

Eastern States Farmers' Exchange

A non-stock, non-profit organization,

owned and controlled by the farmers it serves

HEADQUARTERS:

SPRINGFIELD, MASSACHUSETTS

COW TESTING ASSOCIATIONS

One Cow in Five is 1000 Pound Milker in Penna.

One cow of every five tested in April gave at least 1000 pounds of milk and one in every seven cows produced 40 or more pounds of butterfat, the Pennsylvania State College dairy extension service reports.

Sixty associations in the state reported 20,633 cows tested, of which 2797 cows producing more than 40 pounds of butterfat and 3942 exceeded 1000 pounds of milk. Of the 40-pound group 950 topped 50 pounds, while 2000 cows gave more than a half-ton of milk in the 30 days.

Leading all associations in the number of cows tested was the Oxford association of Chester county, with 585. Another Chester county group, the West Chester association, followed with 546 cows. The leaders in number of 40-pound butterfat producers were Laurel Hill in Bradford county with 102 and the West Chester association with 101. In 1000-pound milkers the Susquehanna No. 2 group led with 147 cows, and the second highest number, 145, was reported by the West Chester dairymen.

A registered Holstein in the herd of Stillman Kendrick, of the Wellsboro association in Tioga county, gave 3072 pounds of milk for the best individual cow record. The leading butterfat producer was a registered Holstein owned by Norman E. Rishel, of the Northern York group, with a mark of 114.1 pounds. The highest 10-cow average in butterfat was 76.7 pounds, reported by the Canton association of Bradford county.

Chester Valley Association

The Chester Valley Cow Testing Association in Chester county finished their eighth year on April 1st, 1929, with 22 whole year members. There were 497 cows in the association during all or part of the year.

Results of the Eight Years Testing

Year	Av. No. Cows	Lbs. Milk	Lbs. Fat
1922.....	400.57	6,616	278.3
1923.....	335.82	6,970	280.9
1924.....	363.74	7,247	294.6
1925.....	376.73	6,186	283.1
1926.....	260.66	6,011	276.3
1927.....	445.67	6,085	291.0
1928.....	464.07	6,482	313.6
1929.....	456.07	6,606	311.1

The result for the members is as follows:
Total av. no. of cows in the Association..... 456.07
Av. per cow:
Lbs. of butterfat..... 6.606
% of butterfat..... 311.1
Value of product..... 4.7
Cost of pasture..... \$296.20
Cost of roughage..... 14.22
Cost of grain..... 30.66
Total cost of feed..... 66.62
Value of product above feed cost..... 111.50
Returns for \$1 expended for feed..... 184.70
Feed cost per 100 lbs. milk..... 2.66
Feed cost per lb. fat..... 1.69
Feed cost per lb. butterfat..... .36

Ten herds with an average of five or more cows exceeded an average production of 300 pounds of butterfat. These records were made by the following producers:

Owner's Name and Address	Cows	Breed	Milk	Fat
Wallace Pearson, Downingtown.....	23.58	RJ	7563	394.2
Mrs. Mary Carter, Pocopson.....	16.83	RG:GG	7979	388.6
Dr. Clyde L. King, West Chester.....	8.33	RJ	7651	380.1
Brandywine Meadow Farm, West Chester.....	18.33	RJ:GJ	8432	372.1
Oswald B. Piel, Downingtown.....	13.75	RJ	6625	366.1
John Kent Kane, Glen Loch.....	38.83	RG:GG	7332	361.9
James Latta, Parkersburg.....	14.	CG:GH	7787	350.2
G. Fairlamb Beale, Catesville.....	12.42	RJ	7004	345.7
Harry B. Shenk, Elverson.....	32.	RG	6558	337.7
Frank A. Keen, West Chester.....	19.50	RH	9200	317.9

Bucks County Association

The Bucks County Cow Testing Association finished its sixth year on March 1st, 1929, with twenty whole year members. In addition, six members were in the association during part of the year. The total number of cows for all or part of the year was 427. The result of the six years testing follows:

Year	Av. No. Cows	Lbs. Milk	Lbs. Bu't'f
1924.....	247.46	724	284.3
1925.....	380.68	7549	271.3
1926.....	406.35	7552	281.1
1927.....	366.07	7696	301.6
1928.....	356.56	7879	313.8
1929.....	363.18 (Group 1)	8144	320.4
	(Group 2)	8214	331.8

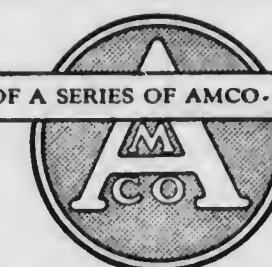
The result of the whole year members is as follows:—
Average No. of cows in the Association..... 261.04
Average per Cow: Lbs. Milk..... 8214
Lbs. Butterfat..... 331.8
Percentage of Butterfat..... 4.0
Value of Product..... \$292.64
Cost of Roughage (includ. pasture)..... 49.33
Cost of Grain..... 82.63
Total cost of feed..... 131.96
Value of product above feed cost..... 160.68
Return for \$1 expended for feed..... 2.22
Feed cost per 100 lbs. milk..... 1.61
Feed cost per lb. butterfat..... .40

Individual Herd Records

Sixteen herds with an average of five or more cows exceeded an average production of 300 lbs. of butterfat. A complete list of these herds follows:—

Owner's Name and Address	Av. No. Cows	Breed	Milk	Lbs. Bu't'f
Sophie M. Geddes, Danboro.....	10.00	RJ	7699	459.3
P. W. Smith, New Hope, R. D. 1.....	14.05	RG:GG	7864	387.0
S. Wilfred Smith, New Hope.....	8.98	RG	7560	367.2
W. D. Yoder, Blooming Glen.....	15.88	GH:M	9848	359.6
F. W. Oehrle, Flatboro.....	5.48	R:GH	10038	355.9
A. Wipred, Wycombe.....	8.03	R:GH	9549	351.7
J. C. Myers, Doylestown, R. D.....	18.62	R:GH	8729	348.8
C. L. Wilkinson, Rushland, Pa.....	14.81	R:GH	9984	346.2
Claud Myers, Plumsteadville.....	17.02	RG:GG	7388	343.5
W. A. Twining, Wycombe, Pa.....	9.84	RH	9781	341.9
E. G. Myers, Chalfont, R. D.....	18.79	R:GH	7658	329.7
Isaac S. Gross, Plumsteadville.....	13.92	RH	9973	327.4
W. R. Yerkes, Buckingham.....	16.27	R:GH	8981	324.4
M. H. Walton, New Hope, Pa.....	12.36	CG	6830	320.2
E. T. Daniels, Pineville.....	10.59	R:GH	8956	319.1
C. S. Kriebel, Doylestown.....	11.43	RA	7364	303.7

NO. 7 OF A SERIES OF AMCO-FED HERDS



HOW CHEAP IS PASTURE MILK



COWS on pasture give milk freely without grain rations—but how cheap is such milk? Few cows can eat enough pasture to supply as much material as they give off in milk. What they don't get from pasture they have to take out of their bodies. When fall comes they are run down in flesh and bone-minerals.

It is actually cheaper to feed grain rations along with pasture. You get the full advantage of lower summer prices, and you can safely drop to a lower protein ration. A little Amco 18% or 20% Dairy goes a long way in building up a cow's body with proteins, carbohydrates, and minerals in correct proportions. The larger year-round production will much more than pay for the Amco Feed.

Amco 18% and 20% Dairy Rations are mixed on Flexible Formulas—meaning that the price is kept down by taking advantage of the best buys on the market. You can be sure that quality does not suffer, because the formulas are also *Open*, listing all ingredients and amounts. You can see what makes the milk flow.

DIVISION OFFICE: MUNCY, PA.

THE cow in the foreground of the above picture is the mother of the purebred Brown Swiss herd belonging to Harry L. Graziar, Warriors Mark, Pa. Most of the time Mr. Graziar feeds Amco 20% Dairy, changing occasionally to Amco 24% Dairy. These flexible formula feeds brought splendid production results during 1928. For that year the herd average was 8755 lbs. milk and 341.4 lbs. butter fat. The total feed cost, including roughage, was \$112.26 per cow, and the net profit, over feed cost, was \$187.41 per cow. Mr. Graziar received \$2.67 for every \$1.00 spent for feed.

AMCO

FEED MIXING SERVICE
AMERICAN MILLING COMPANY
EXECUTIVE OFFICES: PEORIA, ILL.

Plants at: Peoria, Ill., Omaha, Neb., Owensboro, Ky.
Alfalfa Plants at: Powell, Garland, and Worland, Wyo.



What Shall We Eat In Summer?

A fine old toast which loses nothing by repetition reads, "May your appetite keep on good terms with your digestion!" Surely a very appropriate toast for these sultry days of summer, writes Mrs. Edith S. Rose, Supervisor of Home Economics in Chester, Pennsylvania. We crave nothing but cooling drinks, and salads and fruit, and then wonder why we are so tired and weak.

About the best cure for this condition is to eat at our regular meal times, whether we crave food or not.

We have a human engine that needs fuel in summer as well as in winter, and since food is the only fuel it can use, we must eat willy-nilly.

Too many women have the idea that a salad and a sandwich is a perfect combination for all times, too many homemakers think summer is the time to let down on planning meals, because no one cares anything about food.

That tired feeling comes from not eating enough to balance the breaking down of tissues which goes on with every breath we breathe.

No woman who has a family has any sinecure in the summer, if she keeps them well and enjoying their meals. Daily marketing and daily care of the refrigerator are essential if one is to keep in good condition. Molds will grow over night.

No one wants to eat breakfast on a hot sultry morning, but almost everyone can be persuaded to eat some cool fruit, and by the time that has been eaten, some desire for other food has arisen.

A chance to rest before eating dinner will often develop appetite. Better serve dinner a little late, than to serve it to tired people who cannot digest what they eat.

Avoid all-cold meals. Potato salad and apple sauce will taste much better if one hot dish is served with them.

We have some distinctly winter dishes which we should sidetrack for a while. Heavy vegetable soup, baked beans, oatmeal, scrapple, sausage, cornmeal mush, macaroni and fritters are too heating for summer days. Let us substitute more rice, more green vegetables, more milk in custards and in junket and in lemon sherbert and more and more fruit.

Flavor is more necessary in summer than in winter. Variety in the way of serving the same foods, must be studied. Hashed brown potatoes instead of mashed ones, baked tomatoes instead of stewed ones, chicken salad in place of stewed chicken, salmon croquettes instead of salad, may be just the change needed to inspire a poor appetite.

There are foods which do not mix well. Let us watch our combinations, and not eat too much of a mixture. Rather one or two hot and substantial foods, eaten slowly after resting and then salad or dessert or both.

Milk, always our best food, will fit into every meal.

The youngest and oldest members of the family need close supervision in summer.

Small amounts of foods, frequently, for the elderly people whose machinery is almost worn out, will keep them comfortable and with "appetite and digestion on good terms."

Pennsylvania Delegates to National 4-H Club Camp

The National 4-H club camp for rural girls and boys was held in Washington, D. C., June 19th to June 25th. Two girls two boys, and two adult leaders from each State in the Union were present as well as the same number of delegates from Hawaii, Cuba, Australia and other places. The picture below of the Keystone Delegates was taken at the entrance to the camp—a series of tents set up on the Department of Agriculture grounds within the shadow of the monument in our Capitol city. The delegates from left to right include: Miss Harmony Hutchinson, girls' club leader; George L. Luse from Centre County; Elizabeth Jones

a coast to coast network provided by the National Broadcasting Company June 22nd was tuned in on by over 800,000 club members from all over the United States. Mrs. Herbert Hoover was the principal speaker.

Last year much emphasis was put on the Health H or physical development. W. R. Ralston, State leader of California, said, "Good growth and development is a standard part of 4-H work in California; but in addition to the usual agricultural and Home Economic projects, our members are embarked upon learning about their own growth. Why learn to develop a champion cow if you can't learn some-

Picnic Lunches

In these days of frequent meals out of doors the family calls for a change from the inevitable, but convenient sandwiches no matter how hot the weather it is rarely too hot to enjoy one cooked dish out of doors, and the young people have great fun cooking over an open fire. A small quick fire between two flat stones will fry or boil simple foods for camp suppers.

A thermos jug is a very convenient addition to an out of doors meal. It can be used to carry the cold drink, or, when the weather is crisp and cool it is just as satisfactory for cocoa. It is equally valuable for the main hot dish of the out of doors meal. Meat can be creamed at home, and served hot when ready for it. Creamed potatoes, succotash, or vegetable soup have all been used successfully in thermos jugs.

Equipment for camp fire cookery is not elaborate. Two large frying pans with as long handles as possible, a large kettle for boiling vegetables and two long handled agate spoons will be all that is necessary for a satisfactory variety of menus.

If there is a Boy Scout or a Camp Fire girl in the family he or she will be delighted at the opportunity to improve their skill with this kind of cooking. Building and keeping up a cooking fire out of doors is an art to be proud of, and practice makes perfect.

A little thought will provide a meal easy to prepare, fun to cook and a pleasure to eat.

Here are a few suggestions that have been successfully used:

Frizzled beef, fried potatoes, bread and butter, cold or hot drink and dessert.

Eggs scrambled with dried beef or bacon; fried tomatoes with cream gravy, and potato chips; hamburger steak, either as meat cakes or cooked like frizzled beef with a milk gravy; creamed salmon and peas; creamed chicken and peas. No one can forget the joy of eating boiled corn, in season, when sitting around the open fire with watermelon for dessert.

Perhaps you have worked out an especially good picnic combination for your own family. Will you please share it with the other readers of the Review?

The Scouts' Toast to Milk

"That I may be a healthy Scout, strong vigorous, and active—I must have milk. I love to drink delicious milk, fresh from a healthy cow; because it is good, sweet and pure, and because it gives me a clear eye, keen brain and powerful muscles. The bony framework of my body is largely built from the lime and phosphorus of milk; my blood and muscles from its protein; its sugars and fats keep me warm and give me power; its vitamins make me grow. I like bread and milk, mush and milk, milk toast and all the dishes made or partly made of milk; but I love milk best when it is served alone. Come then, fellow Scouts of America; come let us have another glass of milk."

Dairying is one of the seventy-one subjects for which Boy Scout merit badges are awarded.

The woman who dislikes cooking may find that the "cause" of her dislike is a dreary inconvenient kitchen.



KEYSTONE DELEGATES AT THE NATIONAL 4-H CLUB CAMP, WASHINGTON, D. C. Left to Right:—Harmony E. Hutchinson, Girls' Club Leader; George L. Luse, Centre Hall; Elizabeth Jones, Columbia Cross Roads; Gayle Strickler, Vanderbilt; Mary Brubaker, Little; A. B. Bingham, Assistant State Club Leader.

from Bradford County; Gayle Strickler from Fayette County; Mary Brubaker from Lancaster County; and A. B. Bingham, assistant State Club leader. The girls and boys are wearing the National 4-H Club uniforms and insignia; and they were selected to represent their State at the National camp because of their outstanding work and development along four lines—mental, physical, spiritual and social. These are designated by the Head H, Health H, Heart H and Hand H or fourfold development in 4-H clubs.

The camp is held for the purpose of giving representative rural young people an opportunity to become better acquainted with the work and facilities of the Department of Agriculture, to study their government at first hand, and to confer with club representatives of other States. Features of the daily program include conferences of both 4-H delegates and members of the State Extension services; assemblies at which speakers of national prominence talk; educational tours and training in recreational and social leadership. A radio program over

thing of your own growth? Regular weighing, regular records of health habits, coupled with nutrition and rest, are the basis of our program."

It is along that same line—the physical phase of club work—that the Dairy Council has been cooperating with State and County 4-H club leaders in Pennsylvania. Just last month representatives from our Staff attended the Delaware State camp at Newark and presented our suggestions for health projects, posters, literature, plays, games, stories, stunts, etc. The Pirate Story and the Milk Maid Chorus were presented before the final assembly of the campers and their friends and relatives the closing night of camp. Likewise the available literature and suggestions from the Dairy Council will be presented to the 650 boys and girls at the Maryland State Camp the first of August. These helps or suggestions are sent out thru-out the year in the monthly "Pep-er" programs from this office. Write to the office of the Milk Producers Review for our new "Catalogue for Rural Folks."

Dairy Council Meets in Virginia

The seventh annual summer conference of the National and Regional Dairy Councils was held at Virginia Beach, Virginia, on June 24th to 27th.

The sessions of the first two days were given over to reports of activities of the various units from New England, Connecticut, Philadelphia, Pittsburgh, Baltimore, Washington, Detroit, Flint, Ohio Valley, Birmingham, Minnesota, Iowa and California.

Addresses were made by Dr. C. E. Turner, Professor of Biology and Public Health, Massachusetts Institute of Technology; Dr. E. C. Broome, Superintendent of Public Schools, Philadelphia; and Dr. E. V. McCollum, Professor of Chemical Hygiene, Johns Hopkins University.

A full outline of the cafeteria project, conducted by the Philadelphia Inter-State Dairy Council in the Smedley Junior High School, Chester, Pennsylvania, was given by "Happy" Goldsmith, who described the results of this interesting experiment. Some of the selling tricks tested out in the effort to increase the children's purchase of milk, fruit and vegetables were reported to produce no results while others were highly successful.

Dr. McCollum in reviewing the latest developments in the field of nutrition assured his audience that there was no need to be concerned over the destruction of Vitamin C through pasteurization, as in all cases of infants dependent on a milk diet, it may be supplemented at an early age with sufficient quantities of orange juice or tomato juice.

He also referred to the latest findings in regard to copper, cod liver oil, and ultraviolet rays of sunshine. "The most important discovery," said he, "was that of the importance of milk and leafy vegetables in the diet."

Dr. E. C. Broome outlined in a very interesting way the health work being done in Philadelphia public schools, pointing out, among other things, the co-operation which the schools had had from the Philadelphia Inter-State Dairy Council.

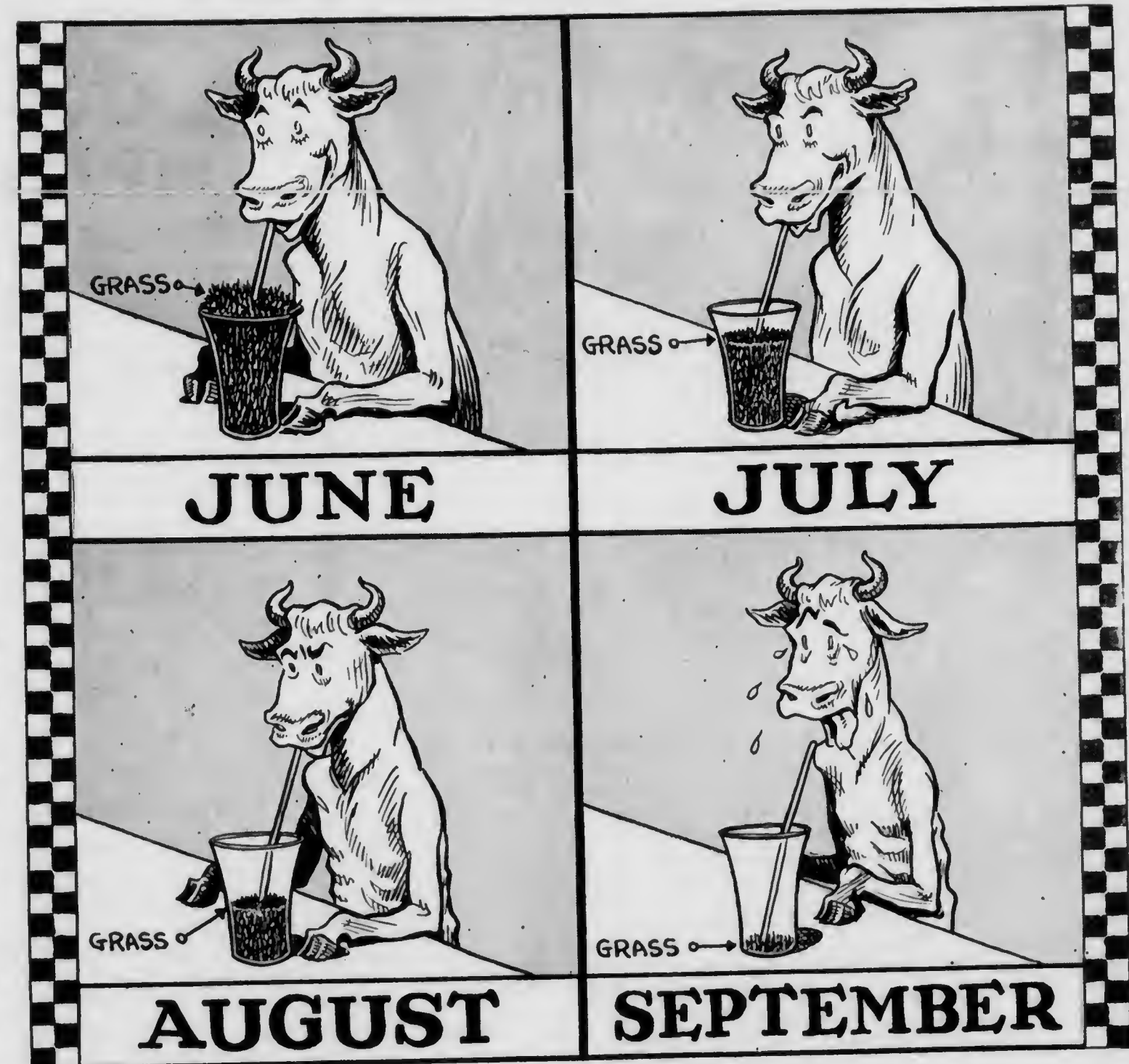
He referred, particularly, to the work of the Nutrition Classes which have been conducted since about the time the organization of the Dairy Council in which we have participated through the gifts of milk for undernourished children and the distribution of material with the co-operation of Dr. Hanna McK. Lyons.

Dr. Broome outlined his ideas with respect to the place which volunteer health organizations and other agencies have in the educational field, and he was very helpful in giving those assembled a picture with respect to this matter so that all present could outline policies and plans for the future.

Dr. C. E. Turner made an interesting report of the studies of height and weight in relation to health in which he has been associated at the Massachusetts Institute of Technology. These studies will later appear in the American Journal of Public Health. Dr. Turner prophesied the increased use of the motion picture as a classroom teaching medium, and commended the high type of films which the Dairy Council has produced.

Harvest Alfalfa Carefully

Early and frequent cutting of alfalfa is not advisable if the stand is to be left for a number of years. Cutting stages differ in various parts of the country. Your county agent can help you to decide the best time for the conditions of your section.



Have a Heart!

The owner of this cow expected her to keep up her production through September on pasture alone. When pasture failed . . . she slumped.

If her owner had tried to make money instead of trying to save money, this slump would not have occurred. If he had fed Green Checker Cow Chow, the

milk-making feed, and Bulky-Las, the cooling body feed, he would have had high production right straight through the summer. Purina supplies what drying pasture lacks.

Order from the store with the checkerboard sign.

PURINA MILLS, 854 Gratiot Street, St. Louis, Mo.
Sold at the stores with the checkerboard sign in the United States and Canada

PURINA CHECKOWS
16% COW CHOW 20%
... CALF CHOW ... 24% COW CHOW 34%
... BULKY-LAS ...

Philadelphia Inter-State Dairy Council

The various departments are at your service and will assist you in planning

EDUCATIONAL ENTERTAINMENT

for your Community, Local or Club Meetings. Lecturers, Speakers, Motion Pictures, Lantern Slides, etc.

R. W. BALDERSTON, Sec'y, 219 North Broad Street, PHILADELPHIA

What happens when you don't say "LARRO"?



IF YOU think all feeds are alike, or if you judge value by price comparisons only, consider what's happening in the feed world today.

"FEEDSTUFFS", a weekly newspaper for the manufacturer, jobber, broker and feed dealer, says:

"Retail feed dealers are making inquiry for flax and wheat screenings in which molasses have been mixed. These are used in preparing dairy feeds."

A Machinery house advertises to feed dealers:

"Plenty of scabby or rusty barley can be had at low prices. By giving it a good mechanical scrubbing it can be made quite satisfactory for feeding purposes. The appearance is improved 100 per cent."

Those who judge value by price comparison only always come out on the short end of the deal.

Wise feeders everywhere have learned that the best way to maintain the health of their cows, hogs and poultry is to say "LARRO."

Ask any user of Larro Feeds and he will tell you that they do not contain any fillers or off-grade ingredients. They will tell you further that year in and year out Larro Feeds do not vary in appearance, chemical analysis or profit-bearing results.

Years of careful testing on the great Larro Research Farm developed the formulas that excel all others in sustaining health and making money.

Don't take chances when it is so easy to say "LARRO," and so make sure that your farm stock will be healthy and your profits will measure up.

THE LARROWE MILLING COMPANY
DETROIT, MICHIGAN

Larro

FEEDS THAT DO NOT VARY
FOR COWS · HOGS · POULTRY

RESULTS COUNT For sweet soil and heavy crops use LIME-MARL — "Nature's Great Soil Builder". Compare results and cost with any other line. High analysis, fine condition, low in price.

Write for free booklet and delivered prices

NATURAL LIME-MARL COMPANY Roanoke, Va.
(2 Plants on B & O Railroad)

Uncle Ab says the best way to get the world to love you is to love it. To feed cows well is to feed them profitably.

A Concrete Milk House

with an asbestos-shingle or slate roof is FIREPROOF, DURABLE and SANITARY... It is believed to be the cheapest in the long run, for it requires few repairs and no painting.

—Farmers Bulletin No. 1214, "Farm Dairy Houses"
U. S. Dept. of Agriculture, Washington, D. C.

Free Construction Plans

A four-page leaflet has been prepared containing plans and instructions for building a concrete block milk house.

INSULATED CONCRETE COOLING TANKS which SAVE HALF YOUR ICE are included in the above plans.

Your Copy Is Free—Ask For It

These plans may be procured from your County Agricultural Agent or by mailing the coupon below:

Portland Cement Association
1315 Walnut St.
PHILADELPHIA
Please send me a free copy of your booklet on "Milk Cooling Houses of Concrete."
Name.....
St. Address (or R. F. D.).....
City..... State.....

Report of the Quality Control Department Philadelphia Inter-State Dairy Council

The following is a report of the work done by the Quality Control Department of the Dairy Council, for the months of April-May, 1929.

No. Inspections Made.....	5996
Sediment Tests.....	1375
No. Permanent Permits Issued.....	311
No. Temporary Permits Issued.....	408
No. Meetings Held.....	23
Attendance.....	4260
Reels Movies Shown.....	0
No. Man Days.....	0
Fairs and Exhibits.....	0
Bacteria Tests Made (Plants).....	89
No. Miles Traveled.....	50946

During these two months 31 dairies were discontinued from selling for failure to comply with the regulations—7 dairies were reinstated before the month was up.

To date 134,514 farm inspections have been made.

Solving a Traffic Problem

Oh, bury him deep
In some shady bower—
He drives in the middle
At ten miles an hour.

—Buffalo Evening News

Inter-State Milk Producers' Association

Incorporated
Flint Building, 219 N. Broad St.
Philadelphia, Pa.

Representing over 21,000 Dairy Farmers in the Philadelphia Milk Shed

OFFICERS

H. D. Allebach, President
Frederick Shangle, Vice President
R. W. Balderston, Secretary
I. R. Zollers, Asst. Secretary
Robert F. Brinton, Treasurer
F. M. Twining, Asst. Treasurer

Board of Directors

H. D. Allebach, Trappe, Montgomery Co., Pa.
S. K. Andrews, Hurluck, Dorchester Co., Md.
J. H. Bennetch, Sheridan, R. D., Lebanon Co., Pa.
Ira J. Hink, Strasburg, Lancaster Co., Pa.
Robert F. Brinton, West Chester, Chester Co., Pa.
E. H. Jonawan, Bradford, Kent Co., Del.
E. Nelson James, Rising Sun, Cecil Co., Md.
J. W. Keith, Centerville, Queen Anne's Co., Md.
H. I. Lauver, Port Royal, Juniata Co., Pa.
S. Blaine Lehman, Chambersburg, R. D., Franklin Co., Pa.
A. R. Marvel, Easton, Talbot Co., Md.
I. V. Otto, Carlisle, R. D., Cumberland Co., Pa.
J. A. Poorbaugh, York, York County, Pa.
C. E. Preston, Nottingham, R. D., Chester Co., Pa.
Albert Sarg, Bowers, Berks Co., Pa.
John Carvel Sutton, Kennedyville, Kent Co., Md.
Frederick Shangle, Trenton, R. D., Mercer Co., N. J.
C. C. Tallman, Columbus, Burlington Co., N. J.
R. I. Tussey, Hollidaysburg, Blair Co., Pa.
Harry B. Stewart, Alexandria, Huntingdon Co., Pa.
S. U. Troutman, Bedford, R. D., Bedford Co., Pa.
F. M. Twining, Newtown, Bucks Co., Pa.
F. P. Willis, Ward, Del. Co., Pa.
A. B. Weddington, Woodstown, Salem Co., N. J.

PRIVATE SALE

OF

HOLSTEINS OF THE BETTER SORT

Registered and Blood Tested for Infectious Abortion. All from fully Accredited herds. Some just fresh. These may be bred at Buyer's option to our good Bull—Prince Aaggie Aralia Mead. His dam is a 4% cow, with an Official Record of more than 1300 lbs. Butter. His full brother sold for \$110,000.00.

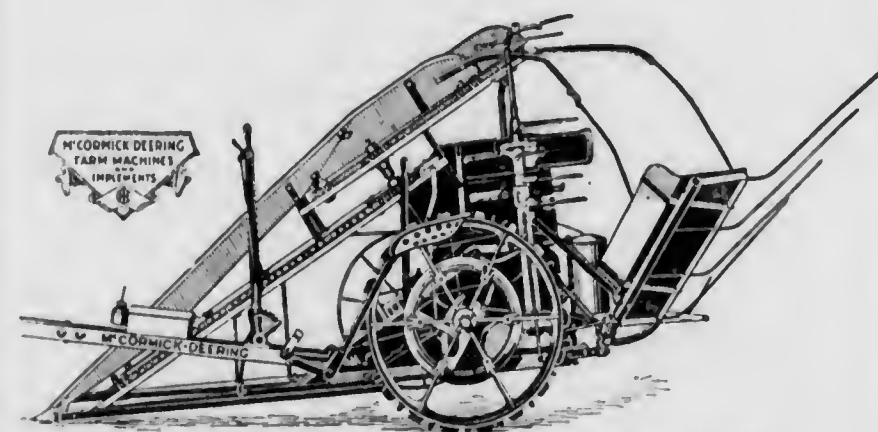
Our August and September (Imported) cows are carrying calves by extra good Canadian Bulls, including the All-American Show Bull—Abbecker Sylvius Lad who recently sold in the Innes Sale for \$3600.00.

This is not only an opportunity to purchase heavy producing cows, but foundation animals of good type from which you can raise a real herd sire. Many of them have good Records and all are priced within the reach of any good farmer.

WM. H. LANDIS, Breeder and Importer,
East Greenville, Montgomery Co., Pa.

Bell Phone—Pennsburg—96-R-21

Multiply Your Man-Power By Seven



McCormick-Deering Corn Binders are built in two types, horizontal and vertical. Both are light-draft, long-lived machines that do hard work quickly and easily.

WHEN you go into the corn with a McCormick-Deering Vertical or Horizontal Corn Binder you are equipped to do the work of from 5 to 7 men with corn knives. And you sit in comfort while you are doing it. Instead of turning standing corn into loose, unwieldy stalks that are hard to load or shock, the McCormick-Deering bundles and ties the corn for fast handling without loss of labor or corn. This saves time at harvest and afterward.

Do not fail to visit your nearest dealer and find out about these machines before corn harvesting season

THE INTERNATIONAL HARVESTER COMPANY
OF AMERICA

PHILADELPHIA

BALTIMORE

HARRISBURG

High Grade Dairy Cows

in
HIGHTSTOWN, N. J.

We handle all kinds of cattle

Holsteins — Guernseys — Jerseys
A Specialty

All cows tuberculin tested and sold subject to a 60 or 90 day retest and fully guaranteed in every respect
Free delivery any distance.

B. ZAITZ & SON

202 Mercer Street

Phone 72 Hightstown, N. J.

High Grade Guernsey and Holstein Dairy Cows

Car load lots a specialty

JOHN S. MATHIS, New Augusta, Ind.



CRUMB'S STANCHIONS

Alon Water Bowls
Litter Carriers
Feed Carriers
Steel Stalls
Steel Partitions

Tell me what you are most interested in and I will SAVE YOU MONEY.

WALLACE B. CRUMB
Box 12, Forestville, Conn.

Radium Is Resoring Health To Thousands

No medicine, drugs or dieting. Just a light, small, comfortable inexpensive Radio-Active Pad, worn on the back by day and over the stomach at night. Sold on trial. You can be sure it is helping you before you buy it. Over 150,000 sold on this plan. Thousands have written us that it healed them of Neuritis, Rheumatism, High Blood Pressure, Constipation, Nervous Prostration, Heart, Lungs, Liver, Kidney and Bladder trouble, etc. No matter what you have tried, or what your trouble may be, try Degen's Radio-Active Solar Pad at our risk. Write today for Trial offer and descriptive literature. Radium Appliance Co., 2689 Broadway Bldg., Los Angeles, Cal.

The "E-Z" Shock Absorbing Seat Spring will make the farm machines TRACTORS, etc., ride EASY. It absorbs the Side-shocks that are so injurious to the Spine and nervous system. Fits any machine. Satisfaction guaranteed or money refunded. Hundreds of unsolicited testimonials from pleased users. Delivered by parcel post. Send for circular. Agents Wanted. GEO. J. KRUM, Old Chatham, N. Y.



"H-K" Milking Machine

Light—Portable—Easy to Clean
IMPROVED TEAT CUPS

A Real Helper on the Farm

BUCKWALTER SUPPLY CO.
40 S. Queen St. Lancaster, Pa.

Report of the Field and Test Department Inter-State Milk Producers' Association

The following statistics show the average operations of all the Inter-State Milk Producers' Association field men in connection with testing, weighing and general membership work, for the month of May, 1929.

No. Test Made.....	7887
No. Plants Investigated.....	43
No. Membership Calls.....	374
No. New Members Signed.....	179
No. Cows Signed.....	1131
No. Transfers Made.....	22
No. Meetings Attended.....	32
No. Attending Meetings.....	8395

Dependable cleaning

IT IS easy to protect your milk from contamination these hot summer days if you use Oakite. This efficient, safe, quick-acting material will make certain that cans, bottles, separators, milking machines and other equipment will be CLEAN! Use it also for washing cow-barn floors, stalls, walls.

You can obtain Oakite and information on its use from our nearest Service Man. A postal to us will bring him to you; or write for booklet.

Oakite Service Men, Cleaning specialists or located in the leading industrial centers of the U. S. and Canada.

Manufactured only by

OAKITE PRODUCTS, INC.
34 F. Thayer St., NEW YORK, N. Y.

OAKITE

Industrial Cleaning Materials and Methods

Quietness and convenience in Philadelphia's Newest Hotel

The Robert Morris

17th & ARCH STREETS
Rooms all outside and with bath. All beds equipped with box springs and Nachman inner hair spring mattresses.

RADIO IN EVERY ROOM
Single rooms... \$3.00 \$3.50 \$4.00
Double rooms... 4.50 5.00 6.00
LUNCHEON .60 and .75
DINNER \$1.00, \$1.15, \$1.50



100 Real Dairy Cows 100

For sale at all times. Tuberculin tested Holsteins, Guernsey and Jerseys. Real milk producers. Carload lots a specialty. Priced to sell.

See or Write

JACOB ZLOTKIN

Phone 2-0 FREEHOLD, N. J.

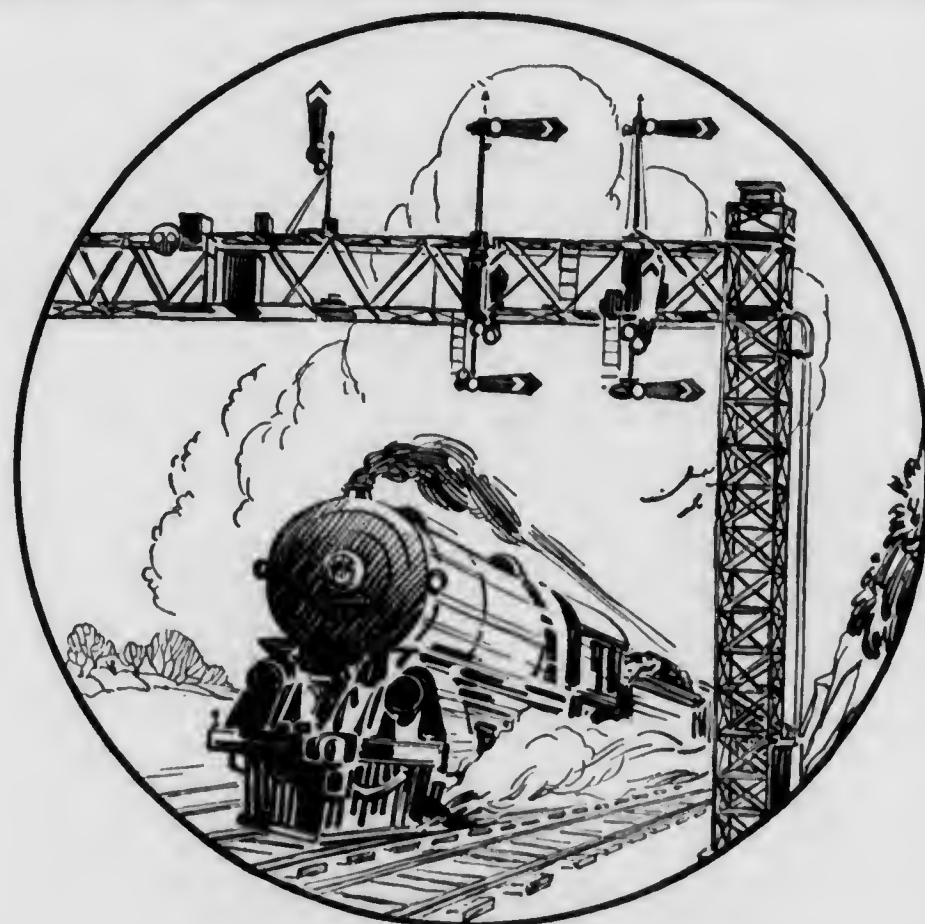
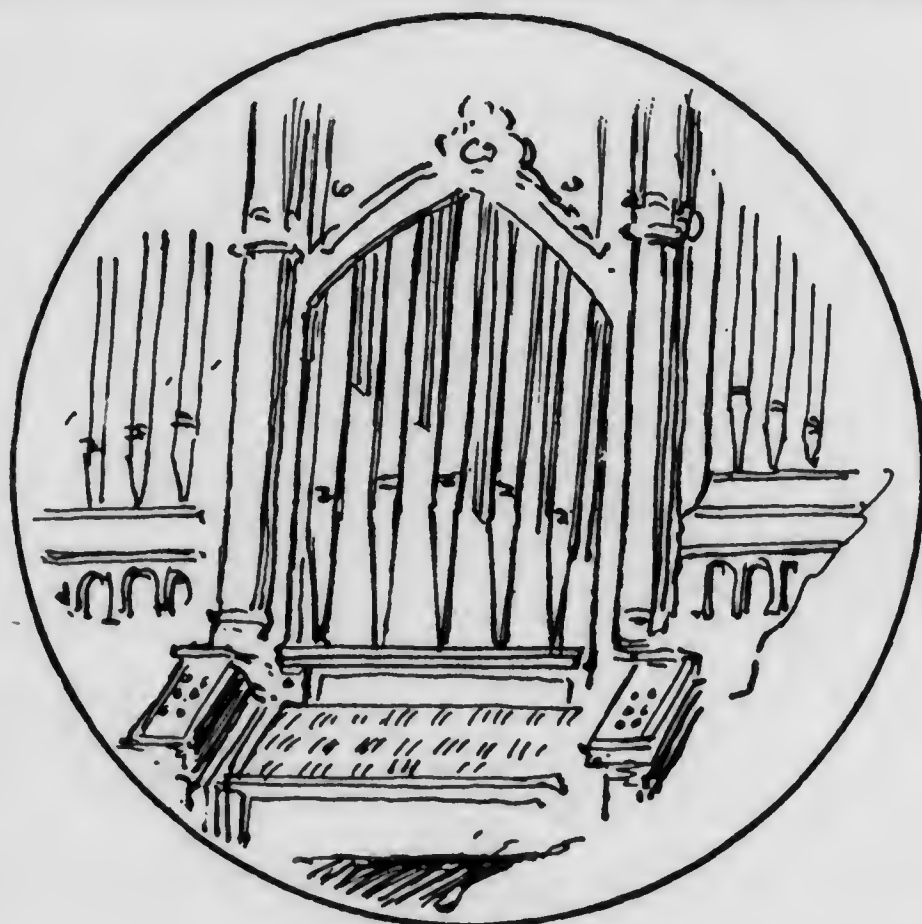


Let Us Design Your Stationery

Horace F. Temple
Printer

Bell Phone No. 1
WEST CHESTER, PA.

What Have Pipe Organs Or Railroad Signals



To Do With — De Laval Magnetic Milkers?

MAGNETIC force, which is used to control the pulsations in the new De Laval Magnetic Milker, is also used extensively for many other purposes; wherever efficiency, lightning speed and dependability are required. Magnetic force is employed in the marvelous pipe organs to control hundreds of valves; in the operation



Send coupon for full information - - -
Either the De Laval Magnetic or Utility
Milkers are sold on such easy terms they
pay for themselves - - Ask for information
on De Laval Separators.

of railway signals, switches; in your telephone, radio, and for many other uses.

In the De Laval Magnetic Milker, the use of magnetic force provides the most dependable, most effective and uniform pulsation control ever devised. In addition, the Magnetic has 14 other exclusive features, making it the world's best milker. It has all the good features ever developed in De Laval Milkers but requires much less power, is easier to handle and install. Made in a variety of sizes. Can be operated with engine or motor.

A De Laval Magnetic will milk cows better, save you more time and give every dairyman greater profit and satisfaction than anything he can buy.

Also the De Laval Utility Milker —For the Low Price Field

The best milker of its kind. Units can be used on any single pipe line milker installation. Made in one and two unit sizes for milking one to 20 cows. Send coupon for information.

The De Laval Separator Co., Dept. 9838

New York, 165 Broadway
Chicago, 600 Jackson Blvd.
San Francisco, 61 Beale St.

Please send me, without obligation, ☐ Milker
full information on ☐ Separator ☐ (Check which)

Name.....

Town.....

State..... R. F. D..... No. Cows.....

Milk Producers' Review

ISSUED MONTHLY IN THE INTEREST OF THE DAIRY FARMER BY THE INTER-STATE MILK PRODUCERS ASSOCIATION, Inc.

Vol. X

West Chester, Pa., and Philadelphia, Pa., August, 1929

No. 4

FEDERAL FARM BOARD BEGINS WORK

Marketing Systems Studied

In the last issue of the Milk Producers' Review we were able to print briefly the personnel at that time, of the various members of the proposed Federal Farm Board. Since that time President Hoover has made definite nominations of all members of the group.

The Federal Farm Board consists of Alexander Legge, chairman. Mr. Legge was born in Wisconsin in 1866. In 1881 he moved to Nebraska and worked on the farm until 1891, when he entered the employ of the McCormick Reaper Co. In 1922 he had become president of the International Harvester Company.

James C. Stone, Lexington, Kentucky, vice-chairman of the Farm Board was born in Richmond, Kentucky, in 1878. He is the owner of a live stock farm and in 1921 founded and was president of the Burley Tobacco Growers Cooperative Association, doing a business of \$50,000,000 yearly.

Carl Williams, Oklahoma City, Okla., was born in Indiana. He has been identified with farming and irrigation work from 1905 to 1913, since which time he has been editor of the Oklahoma Farmer-Stockman.

C. B. Denman, who had been president of the National Livestock Producers Association with headquarters in Chicago, Ill. He is the owner of a livestock farm near Farmington, Missouri.

Charles C. Teague, Santa Paula, Cal., was born in Maine in 1873—but moved to California in 1882. He has been actively engaged in fruit farming and was president of the California Fruit Growers Cooperative Association.

William F. Schilling, Northfield, Minn., He was born in 1872, is a farmer and breeder of pure bred Holstein-Friesian cattle. Since 1917 he has been president of the Twin Cities Milk Producers' Association, Minneapolis, Minn.

Charles A. Wilson, Hall, N. Y., was born in that city in 1879. He is a graduate of Cornell University where he also acted as professor of pomology from 1907 to 1915. He was Commissioner of Agriculture in New York State from 1915 to 1920. He was secretary of the Western New York Fruit Growers' Co-operative Packing Association from 1921 to 1925.

Arthur M. Hyde, Washington, D. C., National Secretary of Agriculture in the Hoover Cabinet, who, under the Act becomes a member of the Federal Farm Board.

Samuel R. McKelvie, former governor of Nebraska, is the last appointment to membership of the Federal Farm Board. Former Governor McKelvie, will represent the grain producing industry. He is a graduate of the University of

Nebraska and is the publisher of the Nebraska Farmer, an agricultural magazine. Governor McKelvie was the governor of the state from 1919 to 1923.

The Secretary of the Federal Farm Board is Chris. L. Christenson, Washington, D. C.

Mr. Christenson resigned as the head of the Cooperative Marketing in the

AMERICAN INSTITUTE OF COOPERATION

Meets in Baton Rouge, La.

The American Institute of Cooperation opened its Fifth Annual Summer Session at the Louisiana State University, Baton Rouge, La., on July 29th. The attendance at the opening session was remarkable from two points of view: first, it was unusually large, and second, it had in its attendants the Secretary of Agriculture of the United States and several

thinking of the American people and particularly the American farmer along the line of cooperation. The new organization would be comparable to the American Federation of Labor or the American Chamber of Commerce and would cooperate with the new Federal Farm Board and with the Division of Cooperative Marketing in the Department of Agriculture.

"Cooperative marketing by farmer owned and controlled business organizations is now definitely a part of our National Agricultural policy. This puts a new and enlarged importance and responsibility on the movement and on its leaders.

"The government has provided ways and means for taking over the marketing of commodities by the cooperatives—either those in existence or others to be created later. The cooperatives are expected to do for the business of agriculture what large scale operations in industry have done for capital and labor. They must be alert to meet these new obligations and responsibilities.

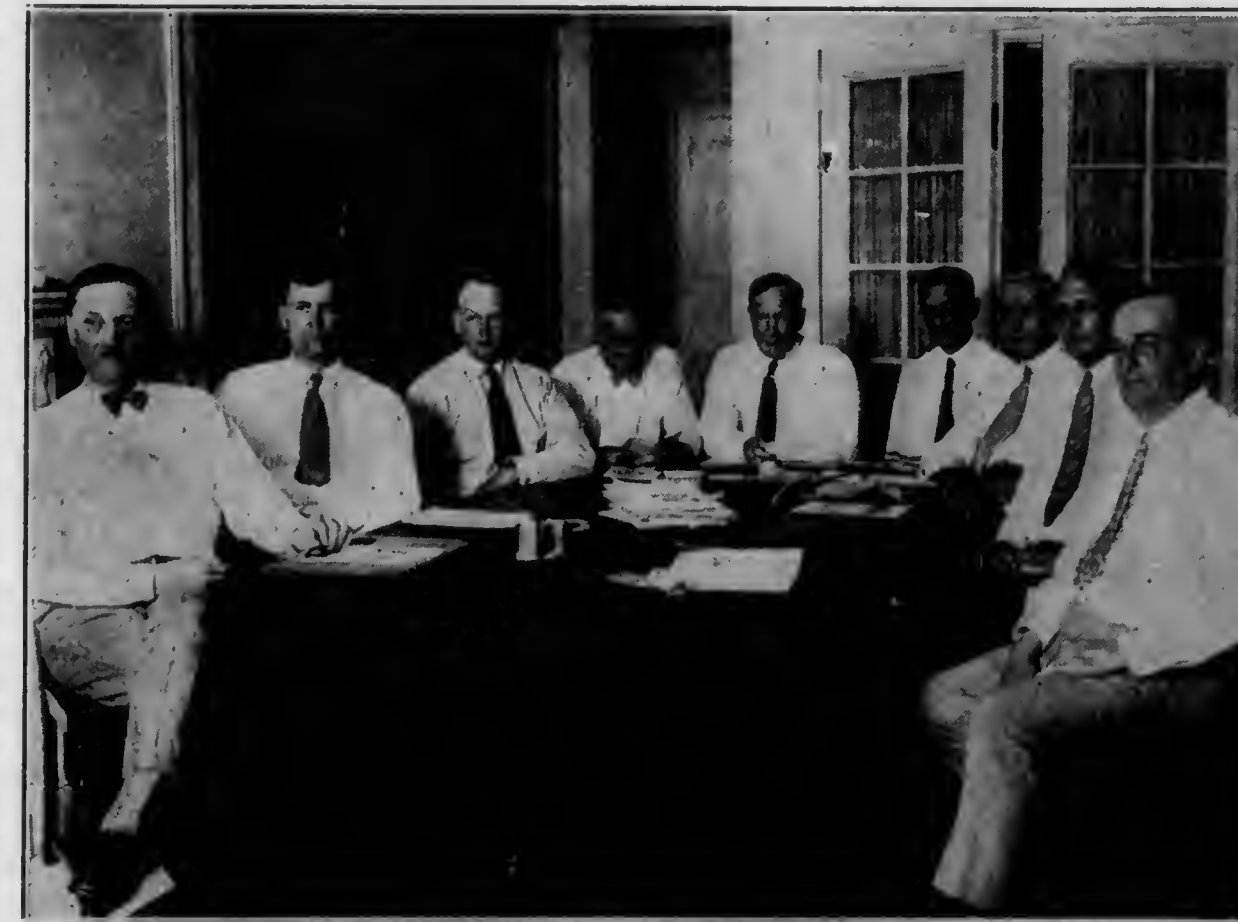
"The agricultural movement should be solidified and made responsible to the needs of cooperation as the needs develop from time to time. The cooperative movement should be made expressive of its ideas and purposes, so as to retain the confidence of the public, the trade and our administrative, judicial and law making bodies. Similarly, the business of cooperation among farmers should be carried on in such a high plane of integrity, square-dealing, far-sighted progressiveness that it shall be influential in the counsels of the mighty, both in government and in the world of business.

The days sessions also included addresses by Paul Zimmerman, Lake Charles, La., on "Financing the Production of Rice." A. H. Stone, Dunleith, Miss., spoke on "Assisting Members to Finance Cotton Production." J. J. Knight, Kansas City, Mo., general manager of the Equity Union Grain Co., on "Financing Grain Facilities," while Lynn Stokes, president of the Texas Farm Bureau Cotton Association, spoke on "Financing Cotton and Cotton Seed Facilities."

These sessions of the Institute presented to the members of the Federal Farm Board their first group opportunity of presenting to organized agriculture direct the ideas and programs in connection with the operation of the Board.

Alexander Legge, chairman of the Board brought a message of optimism to every agriculturist in the Nation in his first official public pronouncement from the Federal Farm Board. Cooperation, he said, was the mainspring

(Continued on page 7)



FEDERAL FARM BOARD

Left to Right: James C. Stone, Kentucky; C. B. Denman, Missouri; Charles S. Wilson, New York; William F. Schilling, Minnesota; Alexander Legge, Chairman, Illinois; Arthur M. Hyde, Secretary of Agriculture, Washington, D. C.; Carl Williams, Oklahoma; Chris. L. Christenson, Secretary of the Board; Charles C. Teague, California.

Bureau of Agricultural Economics, to accept this new position. He is an authority on agricultural cooperation in the United States and abroad and has been in charge of cooperative marketing research in the Department of Agriculture since 1925.

Federal Farm Board Begins Work

That the Federal Farm Board has a stupendous piece of work before it is with out question. It will require some time, however, before the Bureau can function smoothly. Plans are under way for permanent quarters to house the Board, mean while temporary quarters have been provided in the May Flower Hotel.

The Board firmly believes that the cost of distribution of farm products, between producer and ultimate consumer and in the possibility that returns to producers may be increased without any corresponding increase in price to the ultimate consumer. It firmly believes that, in many instances this is possible through the development of wide spread farmer groups for cooperative marketing, through greater efficiency in management of cooperative institutions and through more direct avenues of trade between

(Continued on page 7)

members of the recently organized Federal Farm Board, including Mr. Legge, its chairman, Mr. Williams and Mr. Teague.

There were also present a number of outstanding representatives of the dairy industry, including among others, John D. Miller and Geo. W. Slocom, of the Dairymen's League, F. P. Willis and R. W. Balderston of the Inter-State Milk Producers' Association, C. E. Hough, Connecticut Milk Producers' Association, Harry Hartke, president and Charles W. Holman, secretary of the National Milk Producers' Federation, I. W. Heaps, Maryland State Dairymen's Association, John McGill, Maryland-Virginia Milk Producers' Association.

The session was opened with an address by C. O. Moser, Dallas, Texas, chairman of the Institute and president of the American Cotton Growers Exchange. Mr. Moser in his address on "Present Problems of the Cooperative Movements," said, in referring to the proposed National Chamber of Agricultural Cooperatives, which is proposed to be established in Washington, D. C., which would deal not only with Congress and the various Federal Departments, but would aid to crystallize the

Farm Returns for 1928 Best Since Depression

Farm returns in 1928 showed improvement over 1927 and were the best for any year since the post-war agricultural depression, according to the annual survey of farm returns by the Bureau of Agricultural Economics, United States Department of Agriculture.

Reports from 11,551 owner-operated farms in all parts of the country show an average net return of \$1,334 for the year 1928, as compared with an average return of \$1,290 on 13,859 farms in 1927. The reports show a difference of \$94,050 between the highest and the lowest returns. Twenty-six per cent showed returns between \$1,000 and \$2,000; 45 per cent showed zero to \$1,000, and 9 per cent showed losses.

The average net return in 1926 was \$1,133; in 1925 it was \$1,297; in 1924 the net return was \$1,205; in 1923 it was \$1,020, and in 1922 the net return was \$917. By geographic divisions the largest increases in 1928 over 1927 were in the South Central States, 14 per cent; West North Central, 10 per cent; East North Central, 8 per cent. Decreases were greatest in the South Atlantic States, 22 per cent; North Atlantic, 17 per cent. In the western section the returns showed practically no change from 1927.

Gross receipts were larger in 1928 than in 1927 on the average, but expenses were also higher. The average size of the farms reporting for 1928 were 284 acres with an average investment of \$15,417, both size and capital investment being larger than the Census average. No tenant farms are included. Average gross receipts were \$2,608, consisting of \$946 from sales of crops, \$936 from sales of livestock, \$689 from sales of livestock products, and \$37 from miscellaneous other items. Average current cash expenses in 1928 totaled \$1,518, consisting of \$394 for hired labor, \$238 for livestock bought, \$262 for feed bought, \$67 for fertilizer, \$46 for seed, \$184 for taxes on farm property, \$151 for machinery and tools, and \$176 for miscellaneous items.

Receipts less cash expenses averaged \$1,090, in addition to which these farmers used home-grown products valued at an average of \$269 at farm prices. The value of fuel used and of house rent was not reported. On the other hand, the total expenses (\$1,518) do not include any allowance for the labor of the farmer and his family, which was estimated by the farmers at an average value of \$768 on the basis of current wages for hired hands.

The farmers reported an increase of \$244 in inventory values, which figure added to the cash balance of \$1,090 made a farm net return of \$1,334. Out of this amount \$202 was paid as interest on indebtedness, and \$126 was spent for improvements.

Barclay Farms Ayrshires Rank Among Leading Producers in United States

During May the seven Ayrshires owned by Barclay Farms, Rosemont, Pennsylvania, ranked among the leading producers in the United States on their average production of 685 pounds of 4.31% milk, 29.56 pounds of butterfat, tested under the rules of the Ayrshire Herd Test, according to Advanced Registry Superintendent W. A. Kyle of the National Ayrshire Breeders' Association, at Brandon, Vermont.

Farm boys who are graduated from high schools this Spring should consider continuing their education in order to make fullest use of their farm training and background.

I. M. P. A. Directors Hold Bi-Monthly Meeting

The regular bi-monthly meeting of the Board of Directors of the Inter-State Milk Producers' Association, was held at the offices of the organization in Philadelphia on July 25th and 26th, at which the following officers and members of the Board were in attendance: H. D. Allebach, president; Frederick Shangle, vice-president; Robert F. Brinton, treasurer; F. M. Twining, assistant treasurer; Robert W. Balderston, secretary; I. R. Zollers, assistant secretary and the complete Board including:

S. K. Andrews, Hurlock, Dorchester Co., Md.

J. H. Bennetch, Sheridan, R. D., Lebanon, Co., Pa.

Ira J. Book, Strasburg, Lancaster Co., Pa.

E. H. Donovan, Smyrna, R. F. D., Kent Co., Del.

E. Nelson James, Rising Sun, Cecil Co., Md.

J. W. Keith, Centerville, Queen Annes Co., Md.

H. I. Lauver, Port Royal, Juniata Co., Pa.

S. Blaine Lehman, Chambersburg, R. D., Franklin Co., Pa.

A. R. Marvel, Easton, Talbot Co., Md.

I. V. Otto, Carlisle, R. D., Cumberland Co., Pa.

J. A. Poorbaugh, York, York Co., Pa.

C. F. Preston, Nottingham, R. D., Chester Co., Pa.

Albert Sarig, Bowers, Berks Co., Pa.

John Carvel Sutton, Kennedyville, Kent Co., Md.

C. C. Tallman, Columbus, Burlington Co., N. J.

R. I. Tussey, Hollidaysburg, Blair Co., Pa.

Harry B. Stewart, Alexandria, Huntingdon Co., Pa.

S. U. Troutman, Bedford, R. D., Bedford Co., Pa.

F. P. Willits, Ward, Del. Co., Pa.

A. B. Waddington, Woodstown, Salem Co., N. J.

The minutes of the previous meeting, as well as the minutes of the various meetings of the Executive Committee; the report of the treasurer and the presentation of current bills for payment were approved.

In view of certain proposed changes in the by-laws of the Association, Mr. Nicholson, of Taylor, Robey, Hoar and Nicholson, attorneys for the Association, stated that these proposals now under consideration, were the result of a number of committee conferences on the subject of the retirement of stock certificates of members who have died or retired from business. In order that the Association may keep strictly in conformity with the Capper-Volstead federal co-operative law and similar state statutes, it is necessary that this matter be checked up carefully and that our by-laws be adjusted so that our membership be composed in very large

Feed Cows On Pasture

Dairymen find feeding grain to cows on pasture is absolutely essential for high yearly milk production. They supplement the pasture with good quality hay, summer silage, or soiling crops, in addition to a good grain mixture.

Grow Well-Bred Cows

"Safe," "sure," and "cheap," are terms which may be applied to dairy cows when home-raised, provided they are of good breeding, from healthy cows, and well grown.

majority of those actively in the dairy business.

Details with reference to such change will be worked out through further conferences and will be outlined in full in a subsequent copy of the Review. They will be discussed at all local meetings this fall so that the delegates to our annual meeting will be thoroughly informed with regard to the purpose of the change and the manner in which it is to be carried out.

Considerable time was given to a general discussion of the development of the production of milk, under the present form of the Philadelphia Selling Plan. This was led by H. D. Allebach and participated in by the Board as a whole. Certain fundamental policies were agreed upon in this connection, which will be of value to the officers and executive committee in future bargaining for the sale of our members' milk.

F. P. Willits, as a member of the executive committee of the National Co-operative Milk Producers' Federation, made an interesting report of a special meeting of that body, which was held to consider appointments of members of the Dairy Products Advisory Committee to the Federal Farm Board.

J. O. Eastlack, made an interesting report of the sessions of the Senate Finance Committee, which he attended in connection with the proposed tariff revision hearings.

F. M. Twining, reported on the operations of the Field and Test Department, while Dr. Lechner, assistant director of the Quality Control Department of the Dairy Council, reported on its operations since the last meeting of the Board.

Second Days Sessions

Following routine business field report of the various directors were presented. Varying reports as to crop conditions were received which on the whole indicated more or less unsatisfactory conditions. These were largely due to the lack of rainfall during the early summer. Pasture conditions were generally unfavorable and in nearly every case decreased milk production was reported.

Plans for the coming annual meeting of the Inter-State Milk Producers' Association on November 19th and 20th, 1929, were discussed and the following general and sub-committees were named. Entertainment Committee. Fred'k Shangle, chairman; R. W. Balderston, R. F. Brinton, F. P. Willits, F. M. Twining, C. I. Cohee and A. A. Miller. The following sub-committees were also named. Program, F. P. Willits, A. A. Miller and R. W. Balderston; Entertainment, F. M. Twining and C. I. Cohee; Banquet, Frederick Shangle and R. F. Brinton.

The following committee of ladies was appointed to provide for the entertainment of the visiting ladies to the annual meeting. Mrs. Frederick Shangle, Mrs. R. Balderston, Mrs. Robert F. Brinton, Mrs. A. B. Waddington, Mrs. F. M. Twining, Mrs. C. I. Cohee and Mrs. H. D. Allebach.

Keep Young Stock Inside

Spring calves will do better if not turned on pasture at all during the summer. Keep them in clean, well-ventilated quarters. Feed milk or milk substitute with good quality hay and some green feeds.

Keep Milk Cool

Do not let milk in cans stand in the sun while waiting for the hauler. Provide shade, and cover with a wet blanket or canvas. Such simple precautions help to keep the milk cool and prevent loss.

Cumberland County Plans Big Dairy Show

The Fifth Annual Cumberland County (Pa.) Dairy Show will be held on Wednesday and Thursday, August 14th and 15th, five miles south of Carlisle, at Mountain View Park, on the Gettysburg Highway. Approximately 140 head of Holsteins and 100 head of Guernseys, all from that county, will be on exhibition. Prof. A. A. Borland of the Dairy Department of the Pennsylvania State College, will do the judging on Wednesday. On Wednesday evening "Dairy Farm Movies" will be shown and the Middle Springs Grange Orchestra will furnish the music. On Thursday morning, five Educational Demonstrations, depicting achievements of Cumberland County dairymen in the breeding of Registered Cattle will be given by A. A. Raudabaugh, who is just completing his tenth year as tester of the Cumberland County Cow Testing Association.

On Thursday afternoon, Ward Stevens, an Official Judge of the Holstein Association of America, will give a demonstration of the new Herd Classification work, cows from the Cow Testing Association will be placed according to their show ring standing and then according to their records of production and Master Ribbons awarded on this combination, and Dr. J. C. McDowell of the Bureau of Dairy Industry, U. S. Department of Agriculture, and head of Dairy Herd Improvement work will speak on "Cows that Make the Income Climb."

This show is conducted entirely as an educational event. Entries are limited to dairy cattle from Cumberland County. No prizes other than ribbons are offered. No admission is charged, the show being supported by local contributions. Each year the show has shown a steady increase in size, interest, and attendance and you are cordially invited to attend. Tourist accommodations may be had at the Park. I. V. Otto, one of the directors of the Inter-State Milk Producers' Association is again manager of the show.

Farmers' Cooperation

Cooperative purchasing on the part of farmers is increasing, reports the Division of Cooperative Marketing of the United States Department of Agriculture. During 1928 the volume of business transacted by purchasing associations owned by farmers was greater than during any previous year. The report even states that "the large-scale purchasing association has developed beyond the expectations of its most optimistic advocates." Figures from twenty large buying associations indicate a total business of \$60,000,000 in 1927 and of \$100,000,000 in 1928.

A movement to start a "National Chamber of Agricultural Cooperatives" has been under way since the summer of 1928. A representative committee met in Washington recently and drew up a plan of organization. The proposed chamber is to function as a service and trade association for the 120,000, farmers business associations of the United States. It will aim to develop understanding between various organizations and to further the agricultural cooperative movement. This effort will be the second to achieve the objectives stated. Several years ago a national council of cooperative marketing associations was organized, but it functioned only for a short time because of differences over policies. Some of the chief difficulties occurred over proposed legislation and relations with the federal government. This issue is still to the fore, and the new farm legislation may tend to make it more pressing.

(F. C. of C. C. A.)

Merced County (N. J.) Dairymen Hold Meeting and Picnic

Under the direction of the Merced County, N. J. Board of Agriculture, a meeting and picnic was held in that County on July 17th, 1929.

The tour assembled at the farm of Charles Baldwin, near Pennington, where his Guernsey dairy bull and some of his Guernsey herd and some excellent hogs raised on a self feeding ready to market method were inspected.

A visit was made to the farm of Simon Hansen, near Pennington. Here a field of sweet clover which had pastured a herd of 26 head of cattle this spring was inspected. A field of speltz, which was being used with clover and alfalfa as a cover crop was also inspected. The dairy herd and the poultry on this farm also came in for considerable attention.

The fruit farm of J. H. Hemkens near Glen Moore with 5000 peach and 1500 apple trees was also visited.

The last stop was at the farm of William H. Hamilton near Harborton, where his Farmall Tractor created considerable interest. This farmer has done all his crop work with this tractor—not a horse having been on the farm since March, 1929. The farm, one of 90 acres has been tilled entirely by the use of this machine.

The meeting and basket luncheon was held in Sullivan's Grove, Washington's Crossing. Following the luncheon the meeting was called to order by Leonard Norcross, president of the Merced county Board of Agriculture.

A brief talk on "My Trip to the 4-11 Club Camp, Washington, D. C." was made by Anna Probasco. This was followed by various 4-11 Clubs' Stunts.

William Harper Dean, representative of the U. S. Chamber of Commerce, made an address on "The Agricultural Situation and Farm Relief Measures." Further 4-11 Stunts and an inter-club baseball game followed. Others of the group visited the State Nurseries and Plantings of Forest Trees, under the direction of representatives of the State Forestry Departments.

Fifty-two Per Cent of Cattle T. B. Tested in New Jersey

Fifty-two per cent of the entire animal population of New Jersey is under supervision for bovine tuberculosis, Dr. J. H. McNeil, Chief, Bureau of Animal Industry Department of Agriculture, stated recently in an address at the tenth annual Eastern States Conference on tuberculosis and other animal diseases.

New Jersey has 81,445 animals under supervision, Dr. McNeil said. During the present year, 1,989 herds, comprising 12,431 animals had been given the initial test, with 24 per cent or 2,969 reacting to test.

The initial testing this year has been mostly confined to the herds supplying large milk companies operating in the Philadelphia district. This section comprises counties in the lower half of New Jersey. "It is doubtful if similar progress will be made in northern New Jersey until the New York City Board of Health or officials in northern New Jersey towns enforce a similar requirement as that enforced by the companies operating the southern area of the state."

Dr. McNeil explained the new cattle appraisalment law passed during the last session of the New Jersey Legislature. This act enables the owner to receive practically full appraisal valuation for all reactors. By this method the state is now paying an average of \$52.70 per animal as compared with \$28.89 paid during the last fiscal year.

School for Milk Salesmen

For some time the Philadelphia Inter-State Dairy Council has conducted an educational program, which in itself might appear to be somewhat unique.

By investigation it was found that city milk wagon drivers, the usual sales agent of the milk distributors, were not always well advised as to the nature of the food product that they were selling. They were, in many cases, unfamiliar with the methods of milk production on the farm, many knew little of the food value of milk or of its value in nutrition. To some it simply meant that milk was milk, at so much per quart and a real educational selling program was lacking.

Now all this is different. Milk wagon

With the Consumer, and a group get-together meeting.

In addition to these regular lectures, addresses are made to the drivers by special representatives of the industry which cover various phases of the production, handling and marketing of milk. Motion pictures are also used in illustrating these talks.

Drivers who have successfully passed the examinations at the close of the course are given a Certificate of Efficiency in Milk Salesmanship, by the Philadelphia Inter-State Dairy Council.

These studies have produced very definite results. In one instance sales increased, during the period of the school by 600 quarts. One driver's sales in-



School for Milk Salesmen at the Suburban Dairies, Audubon, N. J.

drivers are taught to be real salesmen. Production and distribution methods are studied. Sales are made on a more scientific basis and the result has been a greater consumption of milk in such sections where the driver puts his knowledge into practice.

The Milk Wagon Drivers' School, which has been under the personal direction of A. J. Churchill was started about a year and a half ago. After a thorough study of the situation a definite program was developed which included among others, salesmanship, production and care of milk on the farm, protection and handling in the dealers plant, the nutritional value of milk and its use in the home, etc.

The period of the school covers ten lessons, usually given one each week. The various topics studied include. The Production of Milk; The Driver and His Job; The Food Value of Milk; Principles of Salesmanship; Preparing Milk for the Consumer; Milk in the Home; Dealing

creased 58 per cent in one month after the course of study.

The increased ability on the part of the drivers to answer customer's questions and to advise them as to food values of milk has resulted in a greater average sale per route.

One company now holds regular monthly conferences of its drivers. These conferences are under the direction of the drivers themselves and the plan has resulted in continued increased business.

Fifteen schools have been held among the dealers in the Philadelphia and nearby milk distribution centers. There were 142 sessions held with a total attendance of 5215 milk drivers.

At the present time seven Milk Drivers' Schools are being planned in the Philadelphia Milk Shed, three in Johnstown, one in Altoona, one in Chester and two in Philadelphia, and inquiries for proposed meetings are coming from many other distributors.

Clean Milking Machine After Using

Equipment to clean the milking machine is as essential for successful operation as is the vacuum pump, according to James D. Brew of the New York state college of agriculture. Bacteria get into milk largely from unclean utensils but with the proper equipment a milking machine may be cleaned as efficiently as a milk pail and with little more work.

After every milking period, draw through each unit at least a gallon of clean, cold water, lifting the test cups up and down in order to allow the water and air to rush alternately through the rubber parts into the pail. Do this immediately after milking because to allow the units to stand even for a short time permits the milk to dry, makes the machine more difficult to clean, and increases the possibility of excessive bacterial growth.

Scalding Water

Follow the cold water at once by drawing through each unit at least one gallon of scalding water; the hotter the better.

A handful of good washing powder increases the efficiency of the hot water. It is this water which removes the grease-like material that collects on the surfaces of milk utensils. This grease-like material furnishes food for bacteria growth and if it is not removed it renders any attempt to sterilize of little or no value. A fresh supply of cold and hot water should be used for each of the three rinsings.

Scrub the metal and rubber parts of the machine with brushes after each use. The rubber parts may be disinfected either by immersion in water which is then heated to at least 170 degrees Fahrenheit and allowed to stand, covered until the next milking period, or by immersion in a hypochlorite solution.

Complete information on cleaning milking machines may be obtained from the office of publication, State College of Agriculture, Ithaca, N. Y., by requesting Bulletin E, 43, on "Directions for Cleaning and Care of Milking Machines."

666,000 Boys and Girls Enrolled in 4-H Clubs

Boys and girls in 4-H clubs in 1928 numbered 47,000 more than in the year previous, according to advance tabulations of county agents' report by the Office of Cooperative Extension Work, United States Department of Agriculture.

In 1927, there were 619,712 boys and girls enrolled in club work in agriculture and home economics and 399,107 of these completed the projects which they undertook. The advance figures for 1928 indicate an enrollment of more than 666,000 with 447,000 members completing their work.

"This substantial increase in enrollment," says C. W. Warburton, Director of Extension Work, "is in line with the increases that have been made in club enrollment during the last several years due to the increasing interest extension forces are taking in club work. It does not represent to any great degree the influence of the Capper-Ketcham Act; funds from that Act did not become effective for use until well after the time when the 1928 clubs were organized and were going ahead with the year's program of work."

The Capper-Ketcham Act, which was passed May 22, 1928, became effective July 1, 1928. The Act authorizes an appropriation of \$980,000 annually, of which \$20,000 goes to each State and the Territory of Hawaii, for the further development of extension work in agriculture and home economics. It also provides that the same sum and an additional \$500,000 appropriation be divided among the States and Territory of Hawaii each fiscal year following. Largely due to these additional Federal funds, 438 new county extension agents have been employed since April 1, 1928.

"With this added force of 438 agents, it will be interesting to watch the growth of the club work in 1929," Director Warburton declared, "since all agricultural and home demonstration agents give a part of their time to club work, while the county club agents, of whom there are 193, give the whole of their time to this line of extension activity."

Bucks County Dairymen's Association Field Day Meeting

The Bucks County Dairymen's Association members were entertained by the Bucks County Holstein Friesian Breeders' Association at the farm of Joseph P. Canby, Hulmeville, on Saturday, August 3rd. About 250 Dairymen from Bucks and Montgomery Counties attended the meeting.

A judging contest was staged in the morning at which prizes were won by Chas. D. Kagey, of Gratesford, Montgomery County, and S. Wilfred Smith, of Bucks County, in the men's classes, and by the son of Mr. Price, President of Solebury Local Branch of the Inter-State Milk Producers' Association.

Lunch was served by the Makefield Mothers' Club, and in the afternoon talks were given by Happy Goldsmith, of the Phila. Inter-State Dairy Council, W. D. Robens, of Poland, New York, H. E. Robertson, York, Pa., and Allen Crissey, Fieldman of the Holstein Friesian Breeders' Association of America.

Plans are already under way for next year's Field Day, when the Bucks County Guernsey Breeders' Association will entertain.

Romance Still Lives

Wanted by a bachelor of middle age, to correspond with lady or widow of same age, with idea in mind of entering poultry business.—"Ad in Montana Paper."

INTER-STATE MILK PRODUCERS REVIEW

Official Organ of the
Inter-State Milk Producers' Association, Inc.
August A. Miller, Editor and
Business Manager
Frederick Shangle, Advertising Manager
Published Monthly by the Inter-State Milk
Producers' Association, Inc.

Business Office
Flint Building, 219 N. Broad St., Phila., Pa.
235 E. Gay St., West Chester, Pa.
Editorial and Advertising Office
Flint Building, 219 N. Broad St., Phila., Pa.
Bell Phone, Locust 5391 Locust 5392
Keystone Phone, Race 5344

Printed by Horace F. Temple, Inc.
West Chester, Pa.
Subscription
50 cents a year in advance
Advertising rates on application

"Entered as second-class matter, June 3, 1920,
at the post office at West Chester, Pennsylvania
under the Act of March 3, 1879."



During the summer months especially and, in fact, throughout the entire year, care should be taken to supply the consuming public with the best possible quality of fluid milk. Milk that reaches the consumer in an unsatisfactory condition is not only a loss to the producer or the distributor, but retards consumption, frequently not only temporarily but probably for an extended period.

We have educated our consumers to a high degree of appreciation for quality and there should be no let down in the method of production or handling that might result in decreased consumption.

The United States Department of Agriculture is today urging milk dealers to use special care in the methods of pasteurization and the cleanliness of equipment and utensils during the hot weather season—so as to insure the high quality of milk during summer months, and it is just as important for the producer to observe the same care in his production methods.

Milk that is off in flavor, sour or of high bacteria count retards consumption and should not be mixed with milk of good quality. To do so reduces the quality of all of the milk.

Milk should be cooled quickly, directly after milking and kept at a low temperature until delivered at the receiving station or to the distribution plant.

Proper observance of this rule will not only result in a marketable grade of milk but will also have a tendency to increase consumption by the public.

Because of widespread misapprehensions regarding the functions and limitations of the Federal Farm Board, Chairman Legge has had to issue some explanations. Private business enterprises, small unorganized groups of farmers and even individuals have applied to the board for loans from the \$150,000,000 fund it has in hand. Loans can be made only to co-operative associations, which must be organized under State laws. There is no rule as to the size of these associations. The board is not obliged to grant all applications for loans made in due form. It will use its discretion. Each case will be judged on its merits.

A usually well-informed Washington correspondent recently stated that the Farm Board would actively promote the forming of co-operative associations. Chairman Legge says this will not be its policy. The farmers themselves must take the initiative. It is a good thing to have these points made clear as the Farm Board buckles down to business. It is estimated that about 2,000,000 farmers are now members of co-operative

associations. Evidently millions more will have to join this progressive movement if agriculture is to receive full benefit from the Government's plan for farm relief.

—Editorial in the Public Ledger, July 21, 1929.

Christenson Made Secretary of Federal Farm Board

Chris I. Christenson, head of the division of co-operative marketing in the Bureau of Agricultural Economics, United States Department of Agriculture, has tendered his resignation and will become secretary of the recently created Federal Farm Board.

Mr. Christenson is an authority on co-operative marketing, both in the United States and abroad. He has been in charge of co-operative marketing research in the Department of Agriculture since 1925. His work in this connection has dealt with outlining, directing, and conducting research in co-operative marketing and purchasing including the making of analyses of the various functions performed by private marketing enterprises and co-operative organizations.

Andrew W. McKay, senior agricultural economist in the Bureau of Agricultural Economics, who has been associated with the Division of Co-operative Marketing since its formation, has been designated by Nils A. Olsen, Chief of the Bureau as acting in charge of the Division of Co-operative Marketing.

AUGUST MILK PRICES

Inter-State Milk Producers' Association, Inc.
The price paid for basic milk during August, 1929, will, subject to market conditions, be the same as quoted for July, 1929. Milk sold to co-operating dealers will be paid for on the basic and surplus plan.

Class I Surplus milk will be paid for by co-operating dealers on the average price of 92 score, solid packed butter, New York City, plus 20 percent. Class II Surplus has been eliminated, under the Philadelphia Selling Plan, during the remainder of the year.

Pennsylvania Farm Products Show Building

The proposed plans for the new State Farm Products Show Building, to be erected at Harrisburg, Pa., have, according to recent reports been approved and signed by the Governor of the State.

The new building is to cost approximately \$1,250,000. The building will cover 12 acres and is to be ready for occupancy by the 1931 exposition.

The plans for the building were prepared by the Pennsylvania Department of Property and Supplies. Bids for the construction of the building are to be opened August 17, 1929.

AUGUST BUTTER PRICES

Philadelphia	New York	Chicago
1 43 1/2	42 1/2	41
2 43 1/2	42 1/2	40 1/2
3 43 1/2	42 1/2	41
4 43 1/2	42 1/2	41
5 43 1/2	42 1/2	41
6 43 1/2	42 1/2	41
7 43 1/2	42 1/2	41
8 43 1/2	42 1/2	41
9 43 1/2	42 1/2	41
10 43 1/2	42 1/2	41
11 43 1/2	42 1/2	41
12 43 1/2	42 1/2	41
13 43 1/2	42 1/2	41
14 43 1/2	42 1/2	41
15 43 1/2	42 1/2	41
16 43 1/2	42 1/2	41
17 43 1/2	42 1/2	41
18 43 1/2	42 1/2	41
19 43 1/2	42 1/2	41
20 43 1/2	42 1/2	41
21 43 1/2	42 1/2	41
22 43 1/2	42 1/2	41
23 43 1/2	42 1/2	41
24 43 1/2	42 1/2	41
25 43 1/2	42 1/2	41
26 43 1/2	42 1/2	41
27 43 1/2	42 1/2	41
28 43 1/2	42 1/2	41
29 43 1/2	42 1/2	41
30 43 1/2	42 1/2	41
31 43 1/2	42 1/2	41

Market Conditions

H. D. ALLEBACH

Milk production in June was very changeable. During the first half of the month our production was very high, but it took a sharp decline in the last half due largely to unfavorable weather conditions.

We have no record, as yet, of our July production but apparently it has dropped off considerably from that of May and June. Quite a few of the small towns are short of milk and we find the supply slowing up considerably in Philadelphia. The extremely hot weather has not made consumption as high as we thought it would be, considering the conditions.

At our directors' meeting held on July 25th and 26th, the reports from our twenty-four directors showed us that practically the whole territory was pretty dry and that the pasture was getting short. This has a lot to do with the falling off in production during the month of July.

Conditions in the various parts of our territory are very different. Some reported a large hay crop, others small. Some reported the corn in good condition, others not so good. Without any exception they reported that pasture was very poor at present and they were afraid that, unless we have rains very soon, it would not amount to very much during the remainder of the pasture season.

We believe the hot, dry weather has had a lot to do with the dissatisfaction of our members at our "A" milk plants. We find that the temperature and flow of the springs in many sections is lower at present than they have been for a good many years, at this time of the year. No doubt this is the cause of some of our farmers having a high bacteria count, as insufficient quantity of water is used in cooling the milk. Our farmers claim that they are giving their milk better attention than they did a year ago, yet their bacteria counts are higher. We believe that, in order to meet the standard "A" milk regulations, a number of our farmers will have to buy ice during the hot summer months, if they expect their premiums in the winter. We believe that it would pay to purchase about 10 cents worth of ice for every hundred pounds of milk produced in order to keep the bacteria counts down when these conditions prevail.

With the high price of dairy cows and the feed costs mounting so fast we feel that some adjustment should be made in the price of milk. We had a conference with our buyers the latter part of June to go over this situation, but no decision was reached. We are calling another conference sometime in August and hope that some price adjustment can be made. I want to state that whatever is done, your fall production will be figured in your basic amount for next year, therefore, you should govern yourselves accordingly and keep your fall production up to at least your present average, or a trifle above, if you can reach that during the balance of the year.

Now is the time to prepare for your fall production, don't wait until October is here.

July Milk Prices

Fluid milk prices under the Philadelphia Selling Plan, will be paid for by co-operating dealers, for the month of July, on the following basis.

Grade B Market Milk (basic quantity average) three per cent butter fat content, f.o.b. Philadelphia, is quoted at \$3.29 per hundred pounds or 7.1 cents per quart.

Grade B Market Milk, (basic average) three per cent butter fat content, delivered at receiving stations in the 51 to 60 mile zone, for July, is quoted at \$2.71 per hundred pounds. The usual butter differentials and freight rate variations, applying to other mileage points in the territory are shown by quotations on page 5 of this issue of the Milk Producers' Review.

The price of "A" Milk under the usual butter fat differentials and prices in the different mileage zones in the territory and at "A" stations for July are quoted on page 5 of this issue of the Milk Producers' Review.

Surplus Prices

The price of Class I surplus milk for July, three per cent butter fat content delivered f. o. b. Philadelphia is quoted at \$2.18 per hundred pounds or 4.7 cents per quart. The price of Class I surplus of the same butter fat content, at receiving stations, is \$1.60 per hundred pounds.

July Butter Prices

Some price reductions in butter, reflecting continuous heavy production, heavy reserved supplies and the usual falling off in demand for storage, have been about the only significant dairy price changes in July. There have been no changes in the trend of production of any of the important dairy products. All things being considered the situation in July is best considered as steady. The natural optimism of the industry being somewhat tempered by the heavy production of butter and condensed and evaporated milk and the reserve stocks now on hand.

Present stocks of butter are higher than a year ago. Total stocks on July 1st were reported as 91,911,000 pounds as compared with 69,750,000 one year ago and the July 1 average for the past five years of 76,903,000, while present indications point to even a still higher rate. Prices of 92 score solid packed butter, New York City, ranged from 42 1/2 cents at the opening of July to 43 1/2 cents at the close of the month. Fluctuations in daily prices were small, the usual range being in 1/2 cent variations, up or down.

The average price of 92 score butter, solid packed, New York City, on which the surplus price of milk for July was computed was .4236 cents, as compared to .4367 cents in June and .4481 cents the average July price for 1928.

926 Townships in Pennsylvania In Bovine Tuberculosis Quarantine

Effective June 15, all townships which have been tested on the area basis for bovine tuberculosis, will be quarantined to prevent the introduction of the disease from outside areas, the Bureau of Animal Industry, Pennsylvania Department of Agriculture, has announced.

Nine hundred and twenty-six townships in 59 counties will be involved in this quarantine which is in accordance with the new quarantine law enacted by the 1929 General Assembly.

It is explained that this action is being taken to give greater protection to the herd owners in the areas which are now free of bovine tuberculosis. Only cattle which are known to be free of the disease can enter the quarantined areas.

LATEST MARKET PRICES

The basic price, quoted below for July, 1929, is to be paid by co-operating dealers on the average basic quantity established by each producer. For all milk bought in excess of the basic amount, the surplus price will be paid for under one classification. Class I, represented by the amount of milk in excess of the basic average and equal to it in amount, which will be paid for by co-operating dealers on the basis of 92 score butter, solid packed, New York City, plus 20 per cent.

The following quotations are based on 1 per cent butterfat content milk and a differential of 4 cents for each tenth point and 2 cents for each half-tenth point, up or down, and are for all railroad points. (Milk stations carry differentials subject to local arrangements.)

INTER-STATE MILK PRODUCERS' ASSOCIATION PRICES
This price list is issued with the understanding that it is net to the producers and that all buyers using it as a basis of payment to producers, shall in addition thereto make the following contributions and payments:
(1) To the Philadelphia Inter-State Dairy Council 2c per 100 pounds (46 1/2 quarts) of all milk bought from members of said Association.
(2) To the Inter-State Milk Producers' Association 2c per 100 pounds (46 1/2 quarts) of all milk bought from members of said Association.
(3) To the Philadelphia Inter-State Dairy Council 2c per 100 pounds (46 1/2 quarts) of all milk bought from other producers at prices listed herein.
The funds so derived are to be used by the recipients for improving standards of quality in production and distribution of milk in the Philadelphia Milk Shed, for improvements and stabilization of market and for an educational campaign advertising the food value of dairy products.

BASIC PRICE
F. O. B. Philadelphia
Grade B Market Milk
Per 100 lbs.
Per Cent
3.05
3.10
3.15
3.20
3.25
3.30
3.35
3.40
3.45
3.50
3.55
3.60
3.65
3.70
3.75
3.80
3.85
3.90
3.95
4.00
4.05
4.10
4.15
4.20
4.25
4.30
4.35
4.40
4.45
4.50
4.55
4.60
4.65
4.70
4.75
4.80
4.85
4.90
4.95
5.00

COUNTRY RECEIVING STATIONS
July, 1929
Quotations are at railroad points. Inland stations carry differentials subject to local arrangements.
Prices are less freight and receiving station charges.
Freight Rates
100 lbs.
3 1/2 milk
\$2.79
Bedford, Pa. 261-270 3.60
Boylestown, Pa. 51-60 3.80
Bridgeton, N. J. 41-50 3.40
Byers, Pa. 261-270 3.50
Cochran, Pa. 51-60 3.50
Goshen, Pa. 201-210 3.70
Huntington, Pa. 51-60 3.50
Kellam, Pa. 261-270 3.50
Kimberlin, Pa. 41-50 3.60
Landenberg, Pa. 181-190 3.80
Mercersburg, Pa. 131-140 3.70
Nassau, Del. 51-60 3.50
Oxford, Pa. 51-60 3.60
Palm, Pa. 51-60 3.60
Red Hill, Pa. 51-60 3.60
Ringoes, N. J. 41-50 3.40
Rushland, Pa. 31-40 4.20
Stockton, N. J. 41-50 3.50
Toughkenamon, Pa. 181-190 3.80
Waynesboro, Pa. 221-230 3.70
Williamsburg, Pa. 31-40 3.60
York, Pa. 41-50 3.60
Zieglerville, Pa. 41-50 3.60
1st Surplus Price..... F. O. B. Phila. 4.00 2.45
2nd Surplus Price..... F. O. B. Phila. 4.00 2.10
1st Surplus Price..... F. O. B. All Rec. Sta. A 1.87
2nd Surplus Price..... F. O. B. All Rec. Sta. A 1.52

JULY SURPLUS PRICES
At All Receiving Stations
CLASS I
Per 100 Lbs.
Per Cent
3.05
3.10
3.15
3.20
3.25
3.30
3.35
3.40
3.45
3.50
3.55
3.60
3.65
3.70
3.75
3.80
3.85
3.90
3.95
4.00
4.05
4.10
4.15
4.20
4.25
4.30
4.35
4.40
4.45
4.50
4.55
4.60
4.65
4.70
4.75
4.80
4.85
4.90
4.95
5.00

JULY SURPLUS PRICES
F. O. B. Philadelphia
CLASS I
Per 100 Lbs.
Per Cent
3.05
3.10
3.15
3.20
3.25
3.30
3.35
3.40
3.45
3.50
3.55
3.60
3.65
3.70
3.75
3.80
3.85
3.90
3.95
4.00
4.05
4.10
4.15
4.20
4.25
4.30
4.35
4.40
4.45
4.50
4.55
4.60
4.65
4.70
4.75
4.80
4.85
4.90
4.95
5.00

MONTHLY BASIC PRICE OF GRADE B OR MARKET MILK
3 per cent butterfat content
Per Cwt. quarts
F. O. B. Phila. station 50 miles some per cwt.
1928
January 3.29 7.1 2.71
February 3.29 7.1 2.71
March 3.29 7.1 2.71
April 3.29 7.1 2.71
May 3.29 7.1 2.71
June 3.29 7.1 2.71
July 3.29 7.1 2.71
August 3.29 7.1 2.71
September 3.29 7.1 2.71
October 3.29 7.1 2.71
November 3.29 7.1 2.71
December 3.29 7.1 2.71
1929
January 3.29 7.1 2.71
February 3.41 7.35 2.83
March 3.41 7.35 2.83
April 3.41 7.35 2.83
May 3.29 7.1 2.71
June 3.29 7.1 2.71
July 3.29 7.1 2.71

MONTHLY SURPLUS PRICES
4% at All Receiving Stations
CLASS I CLASS II
1928
January 2.21 1.81
February 2.21 1.81
March 2.21 1.81
April 2.21 1.81
May 2.21 1.81
June 2.21 1.81
July 2.21 1.81
August 2.21 1.81
September 2.21 1.81
October 2.21 1.81
November 2.21 1.81
December 2.21 1.81
1929
January 2.26 1.88
February 2.26 1.88
March 2.26 1.88
April 2.26 1.88
May 2.26 1.88
June 2.26 1.88
July 2.26 1.88

MONTHLY SURPLUS PRICES
4% at All Receiving Stations
CLASS I CLASS II
1928
January 2.21 1.81
February 2.21 1.81
March 2.21 1.81
April 2.21 1.81
May 2.21 1.81
June 2.21 1.81
July 2.21 1.81
August 2.21 1.81
September 2.21 1.81
October 2.21 1.81
November 2.21 1.81
December 2.21 1.81
1929
January 2.26 1.88
February 2.26 1.88
March 2.26 1.88
April 2.26 1.88
May 2.26 1.88
June 2.26 1.88
July 2.26 1.88

MONTHLY SURPLUS PRICES
4% at All Receiving Stations
CLASS I CLASS II
1928
January 2.21 1.81
February 2.21 1.81
March 2.21 1.81
April 2.21 1.81
May 2.21 1.81
June 2.21 1.81
July 2.21 1.81
August 2.21 1.81
September 2.21 1.81
October 2.21 1.81
November 2.21 1.81
December 2.21 1.81
1929
January 2.26 1.88
February 2.26 1.88
March 2.26 1.88
April 2.26 1.88
May 2.26 1.88
June 2.26 1.88
July 2.26 1.88

MONTHLY SURPLUS PRICES
4% at All Receiving Stations
CLASS I CLASS II
1928
January 2.21 1.81
February 2.21 1.81
March 2.21 1.81
April 2.21 1.81
May 2.21 1.81
June 2.21 1.81
July 2.21 1.81
August 2.21 1.81
September 2.21 1.81
October 2.21 1.81
November 2.21 1.81
December 2.21 1.81
1929
January 2.26 1.88
February 2.26 1.88
March 2.26 1.88
April 2.26 1.88
May 2.26 1.88
June 2.26 1.88
July 2.26 1.88

MONTHLY SURPLUS PRICES
4% at All Receiving Stations
CLASS I CLASS II
1928
January 2.21 1.81
February 2.21 1.81
March 2.21 1.81
April 2.21 1.81
May 2.21 1.81
June 2.21 1.81
July 2.21 1.81
August 2.21 1.81
September 2.21 1.81
October 2.21 1.81
November 2.21 1.81
December 2.21 1.81
1929
January 2.26 1.88
February 2.26 1.88
March 2.26 1.88
April 2.26 1.88
May 2.26 1.88
June 2.26 1.88
July 2.26 1.88

MONTHLY SURPLUS PRICES
4% at All Receiving Stations
CLASS I CLASS II
1928
January 2.21 1.81
February 2.21 1.81
March 2.21 1.81
April 2.21 1.81
May 2.21 1.81
June 2.21 1.81
July 2.21 1.81
August 2.21 1.81
September 2.21 1.81
October 2.21 1.81
November 2.21 1.81
December 2.21 1.81
1929
January 2.26 1.88
February 2.26 1.88
March 2.26 1.88
April 2.26 1.88
May 2.26 1.88
June 2.26 1.88
July 2.26 1.88

MONTHLY SURPLUS PRICES
4% at All Receiving Stations
CLASS I CLASS II
1928
January 2.21 1.81
February 2.21 1.81
March 2.21 1.81
April 2.21 1.81
May 2.21 1.81
June 2.21 1.81
July 2.21 1.81
August 2.21 1.81
September 2.21 1.81
October 2.21 1.81
November 2.21 1.81
December 2.21 1.81
1929
January 2.26 1.88
February 2.26 1.88
March 2.26 1.88
April 2.26 1.88
May 2.26 1.88
June 2.26 1.88
July 2.26 1.88

MONTHLY SURPLUS PRICES
4% at All Receiving Stations
CLASS I CLASS II
1928
January 2.21 1.81
February 2.21 1.81
March 2.21 1.81
April 2.21 1.81
May 2.21 1.81
June 2.21 1.81
July 2.21 1.81
August 2.21 1.81
September 2.21 1.81
October 2.21 1.81
November 2.21 1.81
December 2.21 1.81
1929
January 2.26 1.88
February 2.26 1.88
March 2.26 1.88
April 2.26 1.88
May 2.26 1.88
June 2.26 1.88
July 2.26 1.88

MONTHLY SURPLUS PRICES
4% at All Receiving Stations
CLASS I CLASS II
1928
January 2.21 1.81
February 2.21 1.81
March 2.21 1.81
April 2.21 1.81
May 2.21 1.81
June 2.21 1.81
July 2.21 1.81
August 2.21 1.81
September 2.21 1.81
October 2.21 1.81
November 2.21 1.81
December 2.21 1.81
1929
January 2.26 1.88
February 2.26 1.88
March 2.26 1.88
April 2.26 1.88
May 2.26 1.88
June 2.26 1.88
July 2.26 1.88

MONTHLY SURPLUS PRICES
4% at All Receiving Stations
CLASS I CLASS II
1928
January 2.21 1.81
February 2.21 1.81
March 2.21 1.81
April 2.21 1.81
May 2.21 1.81
June 2.21 1.81
July 2.21 1.81
August 2.21 1.81
September 2.21 1.81
October 2.21 1.81
November 2.21 1.81
December 2.21 1.81
1929
January 2.26 1.88
February 2.26 1.88
March 2.26 1.88
April 2.26 1.88
May 2.26 1.88
June 2.26 1.88
July 2.26 1.88

MONTHLY SURPLUS PRICES
4% at All Receiving Stations
CLASS I CLASS II
1928
January 2.21 1.81
February 2.21 1.81
March 2.21 1.81
April 2.21 1.81
May 2.21 1.81
June 2.21 1.81
July 2.21 1.81
August 2.21 1.81
September 2.21 1.81
October 2.21 1.81
November 2.21 1.81
December 2.21 1.81
1929
January 2.26 1.88
February 2.26 1.88
March 2.26 1.88
April 2.26 1.88
May 2.26 1.88
June 2.26 1.88
July 2.26 1.88

MONTHLY SURPLUS PRICES
4% at All Receiving Stations
CLASS I CLASS II
1928
January 2.21 1.81
February 2.21 1.81
March 2.21 1.81
April 2.21 1.81
May 2.21 1.81
June 2.21 1.81
July 2.21 1.81
August 2.21 1.81
September 2.21 1.81
October 2.21 1.81
November 2.21 1.81
December 2.21 1.81
1929
January 2.26 1.88
February 2.26 1.88
March 2.26 1.88
April 2.26 1.88
May 2.26 1.88
June 2.26 1.88
July 2.26 1.88

MONTHLY SURPLUS PRICES
4% at All Receiving Stations
CLASS I CLASS II

6 out of 8 made records on Amco



Six Amco Feeders in the first eight
leaders of the Indiana County
Cow Testing Association, 1929

*Wm. S. Wetzel	8383 lbs. milk	457.5 lbs. fat
Clyde Houck	7972 "	409.6 "
John C. Walker	7303 "	389.3 "
†H. O. Kimmel	10828 "	355.5 "
Clark Steele	7099 "	349.5 "
Carl Walker	6467 "	341.0 "

*Highest butter
fat average
†Highest milk
average



This cow from the herd of Wm. S. Wetzel, Marion Center, Pa., made the highest butterfat average (580.9 lbs.) in the 1929 Indiana County Cow Test work. Mr. Wetzel has used Amco for five years.

THE 1929 reports of the Indiana County (Pa.) Cow Testing Association show that six out of the eight highest places were won by Amco Feeders. Notice that Amco helped the herd producing the highest average of butterfat and the herd giving the most milk, as well as the three highest on the list.

Is this a surprising feat?

Not when you consider the fact that Amco gives certain advantages you can't get from any other feed. The open formula insures quality. You can see what is in an Amco feed and constantly check the amounts and prices. Besides this, Amco follows college recommendations, giving you the practical benefits of the largest, most unbiased feed research organization in the world.

Late Summer Feeding.

Amco 20% Dairy is the right feed for late summer conditions. The ingredients are always fresh, carefully selected, and mixed with the experience of many years. Amco 20% Dairy furnishes the best balance of highly digestible proteins and other nutrients to satisfy your cows and keep up their milk production. It is a feed that builds up leaders. Look at the open formula tag on a bag of this feed at your nearest Authorized Amco Agent's.

AMCO AMERICAN MILLING CO.
FEED MIXING SERVICE
EXECUTIVE OFFICES: PEORIA, ILL.
DIVISION OFFICE: MUNCY, PA.

Plants at: Peoria, Ill.; Omaha, Neb.; Owensboro, Ky.
Alfalfa Plants at: Powell, Garland, and Worland, Wyo.

COW TESTING ASSOCIATIONS

Activities in Pennsylvania During May

Testing 22,561 cows in May, 64 Pennsylvania associations had 4532 cows producing more than 40 pounds of butterfat and 5581 cows giving more than 1000 pounds of milk, according to reports by C. R. Gearhart, state supervisor of cow testing at the Pennsylvania State College.

Of the 40-pound group, 1544 cows produced more than 50 pounds of fat, and 3147 cows gave more than 1200 pounds of milk, the monthly summary shows.

Leading all associations in the state, the West Chester group in Chester county tested 555 cows. The Chester Valley association in the same county was second with 552. Wayne county association members had the largest number of 40-pound butterfat producers, 165, and Laurel Hill, in Bradford county followed with 140. The Wellsboro association in Tioga county led in the number of 1000-pound milkers with 173, and the Ulysses group of Potter county dairymen was second with 167.

A registered Holstein owned by Stillman Kendrick, of the Wellsboro association, was the best individual milker, giving 3518 pounds. R. G. Williams and Son, of the Canton association in Bradford county, had the second best milker, a registered Holstein with a production of 3010 pounds. The Williams cow led in butterfat production with 135.5 pounds. A registered Holstein in the W. F. Bohlender herd of the Canton group was second with 115.7 pounds. The Canton association had the best 10-cow average in butterfat, 94.5 pounds, and the White Deer Valley association of Lycoming county reported the second highest average, 77.5 pounds.

New Jersey Cow Testing Association

The monthly report of Co-operative Extension Work in the State of New Jersey shows the following data in connection with cow-testing association work during May, 1929.

COW TESTING STUDIES No. 42

HIGH HERD AVERAGES FOR MAY, 1929

(High Averages Mean Low Feed Costs)

ASSOCIATION	MEMBER	LBS. MILK	B.F. FAT	FEED COST
Burlington, No. 2	Joseph Rogers	806	38.5	\$0.16
Monmouth	Percy Farry and Family	1118	44.1	.18
Hunterdon-Somerset	Paul Dorf, Jr.	1059	41.3	.18
Warren, No. 2	Louis R. Reagle	1139	36.4	.18
Burlington, No. 1	Walter L. Jessup	1004	41.6	.21
Warren, No. 1	Smith Almer	1084	39.1	.21
Salem-Cumberland	Ed. Phillips, Jr.	1072	49.6	.22
Mercer	Henry Schmidt	851	43.3	.22
Gloucester	Walter Nicholson	1221	41.8	.25
Salem, No. 1	Archer M. Lock	1092	41.9	.25
Middlesex	Joshua Tindall	1170	37.1	.26
Flemington	James S. Higgins	1164	40.9	.27
Morris	Paul M. Kuder	1162	41.6	.30
Sussex, No. 2	Wm. H. Clark	1338	44.3	.33
Burlington, No. 3	Mrs. O. L. Darnell	1106	37.7	.35
Passaic	Geo. Eckert	1409	51.6	.40
Sussex, No. 1	Francisco & Sons	959	34.	.42
Somerset	P. P. Van Nuys	...	38.7	...

The Three High Cows in Milk Production for May

ASSOCIATION	OWNER	BREED	LBS. MILK	FEED COST OF 100 LBS.
Morris	Paul M. Kuder	H.	2492	\$0.91
Sussex, No. 1	Walter Behrman	...	2337	.29
Passaic	George M. Eckert	...	2325	1.11

The Three High Cows in Fat Production for May

Hunterdon-Somerset	Howard Robinson	H.	LBS. FAT	FEED COST
Mercer	C. E. Murray, Jr.	...	92.4	\$0.77
Sussex, No. 1	Walter Behrman	...	87.5	...
			86.5	.29

Six New Buildings For State College

Six new buildings, approximating a total expenditure of two and a half million dollars, will be constructed on the campus of the Pennsylvania State College within the next two years, according to plans approved by the board of trustees of the college. Funds for the program come from the \$2,250,000 State appropriation signed by Governor Fisher, and from the emergency building fund raised several years ago by alumni and friends of the college.

As much of the program will be completed in the biennium as funds will permit. Overcrowded conditions on the campus will be relieved by the new construction but it will not permit immediate expansion or larger student body because of needed replacements, long delayed. The schedule calls for the construction of the following buildings: rebuilding of Old Main and a new power plant, both under way; new mining building; an addition to the present mining building on the east campus which will be remodeled for instructional work in home economics; a new unit of the Liberal Arts building; a botany greenhouse; general experiment station greenhouse; poultry plant feed house and a building for rural engineering.

Guernseys to Be Exhibited

The Chester County Guernsey Breeders' Association is making a strenuous effort to have a representative county herd at the Maryland State Fair the first week in September.

A committee consisting of Mr. M. T. Phillips and Mr. James Robertson have made a careful survey of the herds in the county and have selected the tops for this great inter-county competition. They believe that the quality of the Guernseys in Chester County will give the breeders in other competing counties in Pennsylvania, New Jersey, Delaware and Maryland a hard fight for the honors.

There is a good deal of interest developing in the county herd show at the Maryland State Fair. The movement was started by the Eastern Guernsey Breeders' Association as another step in promoting the welfare of the breed in the Philadelphia and Baltimore milk sheds. It provides a means for the small breeder to exhibit his outstanding individual animal on the same basis which the large breeder who shows a full herd enjoys. There is sure to be a big attendance at this fair the week of Labor Day, not only of Guernsey breeders, but of many others who are in the market for a few high-class Guernseys.

Eastern States Farmers' Exchange

More Concrete Facts

In the first six months of 1929, groups of farmers purchased 4,186 carloads of feed and grain through the Eastern States Farmers' Exchange, 810 more carloads than during the corresponding period of the previous year.

This increase was secured through the continuation of the Eastern States top quality policy. At practically every point at which Eastern States Feeds have been unloaded during the past five years, other feeds and feed ingredients have been obtainable for less money per ton. Nevertheless, farmers in increasing numbers have tried the Eastern States service, and have found the farmer-control feature with top quality as the standard of that control profitable for them.

A canvass of any neighborhood where Eastern States service has been in operation for any length of time discloses the fact that the list of Eastern States patrons includes a large number of the most intelligent and the most successful farmers. Such men do not continue to pay an apparent premium for commodities unless they secure an actual advantage by doing so.

Where Records Are Kept Eastern States Feeds Prove Their Worth

The full line of Eastern States Feeds proves its worth to more and more farmers every month, general farmers who want to make the most out of what cows and hens they do keep and poultrymen and dairymen who look to their stock for their principal source of income.

No farmer is too small and none too large to benefit from Eastern States service. If you also are thinking of trying the service which thousands are endorsing with their patronage, write the office for information.

Eastern States Farmers' Exchange

A non-stock, non-profit organization,
owned and controlled by the
farmers it serves

HEADQUARTERS:
SPRINGFIELD, MASSACHUSETTS

Federal Farm Board Begins Work

(Continued from page 1)

producer and consumer than are now found to exist in many farm commodities.

The Board also believes that a thorough organization of agriculture for marketing purposes will put producers in a much better position than they now are to control the appearances of surplus at their source and that this angle of approach to the so called "surplus-problem" is worth serious consideration.

The Board intends to develop direct contact with the cooperative marketing groups of America at the earliest possible moment, for the purpose, first, of acquainting the members of the Board themselves, with the specific problems of specific commodities in various regions, and second, for the purpose of acquainting the cooperative groups themselves with members of the Board and their official powers and limitations.

As a first step to this end the chairman of the Board, the Secretary of Agriculture, who is a member ex-officio and other members of the Board went to Baton Rouge, Louisiana, to attend the annual meeting of the American Institute of Cooperation, whose sessions began on July 29th. Cooperative leaders from all sections of the United States will be present at these meetings and an unusual opportunity will be thus offered for personal contact and for the development of cooperative policies.

The Board has further stated that in connection with the matter of loans to cooperative marketing associations, that it will deal only with officials of the co-operatives themselves, and that no association need employ counsel or other special representatives in order to gain a full, complete and sympathetic hearing of its problems. Already a number of such problems are under consideration and are being studied.

This painstaking method is necessarily somewhat slowed down, due to the lack of immediate information and necessary thorough study, will, it is believed, be of particular value in the solution of every problem that comes before the Board.

American Institute of Cooperation

(Continued from page 1)

the organizations plan for assisting in the uplift of the farmer. Cooperation with the farmer and the established cooperative organizations will guide the Board in all of its actions.

National Secretary of Agriculture, Arthur M. Hyde, in an interesting address, declared that the governments attitude toward the co-operative movement was a natural development of its traditional policy of fostering and encouraging agriculture.

"Agriculture," said Secretary Hyde, "is entitled to a position of equality in the economic structure of America. Through its own farm organizations and by its own effort, agriculture can regain the place, and having gained it, hold it. In that cause agriculture has the sympathy and the aid of the government of the United States of America."

He referred briefly to the new Federal Farm Board Act and its proposed methods of operation. He also referred to the activities of the various departments of the United States Department of Agriculture and its constant efforts toward the betterment of the industry.

Following these opening addresses the Institute carried out its regular program of educational work, which includes the general study of agricultural co-operative problems and programs, including that of

A PROMISE MADE A PROMISE KEPT



Many years ago we made this promise of unchanging quality—stating in simple terms a policy that has always been in operation in the manufacture of Larro Feeds.

We made this pledge to our customers for two reasons—we knew it to be correct and we knew we could keep the promise.

When a dairyman or poultryman has used a feed with success, he has a right to expect exactly the same feed whenever he asks for it by name. Users of Larro Feeds know that Larro formulas do not vary—In spite of the natural variation in chemical analysis and texture of various ingredients, the special machinery used in the Larro Mill enables us to make Larro Feeds so that they are always the same in chemical analysis, texture and feeding results.

The great LARRO RESEARCH FARM is constantly studying the problems of animal nutrition—ever at work proving feeds of all kinds—testing new ideas—abreast of every new feeding theory and practice. Some day even Larro formulas may be improved. If better feeds can be made, they will bear the Larro name—until then, Larro Feeds will not change.

LARROE MILLING COMPANY
DETROIT, MICHIGAN

Larro

FEEDS THAT DO NOT VARY
for
DAIRY, POULTRY AND HOGS

cooperative marketing in connection with the production and marketing of milk and dairy products.

On August 1st a conference on Member Relationship was held. This meeting was presided over by R. W. Balderston, secretary of the Inter-State Milk Producers' Association.

At this writing this session of the Institute promises to be one of the best as well as most important that has ever been

held and it will serve no doubt, as an excellent medium for the development of cooperative ideas and programs as well as a medium for the dissemination of proposed policies in connection with the new Federal Farm Board.

Farms on which weeds are kept under control have less plant disease than have other farms where uncultivated areas grow up into a luxuriant mass of weeds.



Out of the Berry Patch

A berrying we can get Blackberries, blueberries, raspberries, currants. What fun, and then what a store of goodies they hold for us.

Of course, we all admit there is nothing nicer than "berries a la natural," with cream or milk and a little sugar if they are too tart.

This very kind of dish makes a wholesome dessert for any meal. What a time and labor saver for someone, too.

But often these berries find their way into other dishes. Perhaps there are a few "left overs," or perhaps it is just a desire for berry muffins. In order that all the berries will not go to the bottom of the muffins, flour them well before adding to the batter.

Berry Muffins (without eggs)

2 c. flour 2 tbsp. butter
1/4 c. sugar 1 c. milk
4 tsp. baking powder 1 c. berries
1/2 tsp. salt

Mix and sift dry ingredients; work in butter with tips of fingers; add milk and berries.

Fruitade

Fruitade made from the juice of berries is a tasty beverage. Keep it in mind when you want something to drink.

4 oranges or 3 lemons 1 c. mint leaves
3 c. blackberry juice 1 pt. water
2 c. raspberry juice 1 lb. sugar
1 c. hot water 2 pts. ginger ale

To Prepare Fruit Juice

- 1—To one quart of berries add three cups of water and cook slowly until the berries have lost their color.
- 2—Put into a jelly bag and drain off the juice.
- 3—Select one cup of mint leaves and bruise slightly.
- 4—Add one cupful of hot water and let it stand twenty minutes and drain.

To Prepare Syrup

- 1—Add the sugar to the water and cook until it forms a thread.
- 2—Add the juice of the oranges or lemons.
- 3—Mix all the syrup, the fruit juice and the mint water.
- 4—Just before serving add the ginger ale.
- 5—To serve, fill a glass with cracked ice and add the fruitade.
- 6—Garnish each glass with a sprig of fresh mint.

Apples and Teeth

The general dictum—"An apple a day keeps the doctor away," has been stretched to "an apple a meal will force dentists to steal," by Dr. Philip Welsh, D.D.S., of New York City, who concludes, after considerable experimentation, that the apple is one of the best dentrifices extant. After ten years of investigation on himself and others, he reports that the more natural a food, the cleaner are the teeth and likewise other parts of the digestive system. The acid fruits, and particularly the apple with its tough peel, act as mouth wash, gargle, tooth-paste, and tooth-stimulant. "Though the healing professions have adopted the use of fruits in the diet of the sick they have not yet acquainted the well with its beneficial effects," Dr. Welsh writes.

A Fish Story

A little group of children in a small town in West Virginia became interested in a cleanliness project. They cleaned up their homes, they improved their own cleanliness habits, they cleaned up their school, and then they began to take an interest in cleanliness in the town. One day the children decided to take a trip to the various stores and see if foods were properly taken care of. In front of one store, right across from the post office, there hung a fish. One day there was one kind of fish and other days another kind of fish, but always there hung the fish. Dust blew over it, flies crawled on it, people jostled against it—and all the townspeople bought it.

The children were horrified at this fish, which they had seen a thousand times,

but only now with eyes searching for clean food. They wrote the story of the fish in their classroom, and according to the custom and promise of the teacher, the best composition was always selected to appear in the School Column of the local newspaper.

The story appeared in the local paper and the next day people jostled each other as they passed the fish. They came into the store and said laughingly, "No fish today, thank you," until finally the storekeeper had to take in the fish. He sent for the school teacher and said, "Look at my store, it is the cleanest one in town. How could I make it cleaner? Why did you do this to me?" And she only replied, "I could not do otherwise, and after all, there hung the fish."

"Cleanliness Journal"



Canning Food for Safety

When care and effort is spent to grow first class fruit it behooves the housewife to use every possible precaution to can it so there will be no spoilage.

Dr. A. F. Woods, Director of Scientific Work of the U. S. Department of Agriculture, says that research and practical experience have demonstrated that non-acid food products, like asparagus, beans, corn, peas, beets, spinach, fish, and meats, except when adequately cured or adequately acidified, can not be safely canned by processing in boiling water, but should be sterilized under pressure with approved time and temperature.

Pressure cookers are now standard equipment and are readily available at small cost. The department does not recommend any particular make, although attention is called to the importance of having the pressure kettle equipped with

thermometer and pressure gauge for proper control.

"There is now no excuse," says Dr. Woods, "for continuing to take risks involved in canning non-acid foods without adequate pressure cooking or curing or acidification."

A sufficient number of cases of poisoning from improperly canned food have occurred in various parts of the country to justify the U. S. Department of Agriculture in sending out a warning. This poisoning is known as botulism and is more apt to develop in cans of non-acid fruit or vegetables where there is not enough natural acid to serve as a preservative.

As a further precaution, make it a rule never to taste any food that shows signs of spoiling either in its appearance or smell. Use only fresh, sound fruit and pack in sterilized jars with sterilized and tested tops and rings.

A Year Round Sport

"There is one type of recreation to which thousands are given, not only in the summer time, but all the time. And it is a perfectly useless one, namely, symptom hunting," said Dr. Theodore B. Appel, Secretary of Health for Pennsylvania.

"It is positively surprising the number of people who apparently under a misguided notion of enjoyment develop and maintain a fear complex in relation to their well-being. A case of ordinary indigestion immediately suggests cancer, a muscle pain on the left side is exultingly considered to be the forerunner of a fatal heart condition, a slight pain on the lower right side is promptly self-diagnosed as appendicitis, a backache is interpreted to indicate kidney trouble and a cough is thought to be the first sign of tuberculosis."

"Of course it is only wise to have a proper regard for physical manifestations that are out of the usual order. But it is decidedly one matter to define every slight indisposition as a forerunner of serious illness or death and quite another to assume a sensible attitude regarding common conditions which are merely temporary manifestations."

"However fine and wonderful present-day life may be, there is yet a sufficient amount of legitimate trouble and worry meted out to all of us without adding imaginary ones to them."

"It may be a fine sport in the estimation of many super-egoists to regale members of their families and their friends with their personal suspicions of this and that disease, but it certainly is not good sense nor is it good psychology. The only net result is to create an unhealthy backfire in one's mental processes and to develop one's self into a chronic nuisance where one's acquaintances are concerned. If you really think there is something wrong with you see your doctor, have him allay your suspicions and then stop talking about it."

"Despite the startling statistics, there are yet and will continue to be, millions of people who will fortunately be spared the major scourges to which humanity sometimes is heir. The body is amazing in its tolerance and adaptability to conditions. It is wise therefore to be able to generate a wise discrimination when slight troubles arise."

"The annual physical examination is the one powerful detective to be relied upon. And in most instances, barring acute conditions, this will suffice to guard one against the insidious inroads of major difficulties."

"Symptom hunters are troublesome to themselves and others. And the development of an alarmist attitude on every little adult ache or pain is silly. Don't hunt trouble in that way. Drop symptom hunting from your list of personal sports."

Reciprocity

There was a fearful crash as the train struck the car. A few seconds later, Mr. and Mrs. Pickens crawled out of the wreckage. Mrs. Pickens opened her mouth to say something but her husband stopped her.

"Never mind talking," he snapped. "I got my end of the car across. You were driving the back seat and if you let it get hit, it's no fault of mine."

Hot Weather Dishes

Tender n-w cabbage is one of the vegetables which is well liked raw. When foods are served in their natural state, none of their goodness is lost. So, rightly some raw food should appear on each day's meal plan.

Cabbage Cheese Slaw

4 tbsp. grated cheese
1 pt. shredded cabbage
1 tsp. salt
1 tsp. brown sugar
1/4 tsp. paprika
Few grains of cayenne
1 tsp. mustard
1 tbsp. vinegar
1/2 to 1 c. fresh buttermilk
Green peppers or celery tips.

Freshen the cabbage by letting it stand in cold water until crisp. Dry. Mix the cabbage and cheese. Blend all ingredients except buttermilk. Then add buttermilk. Pour over cabbage and cheese and garnish with pepper rings or celery tips—small lettuce leaves.

Vegetable Macedoine in Tomatoes

8 medium-sized firm tomatoes
1 pkg. lemon-flavored gelatin
2 c. boiling strained tomato juice (made from pulp removed from tomatoes.)
1/2 tsp. salt
2 c. mixed cooked vegetables (carrots, string beans, peas and celery)

Wash tomatoes, remove a thin slice from top and scoop out centers. Place tomato cases upside down on plate and set in cool place until ready to fill. Dissolve lemon-flavored gelatin in boiling tomato juice, add salt. Chill. When slightly thickened, fold in vegetables and fill tomatoes with mixture. Chill until firm. When ready to serve, cut each tomato in quarters, using a sharp knife dipped in hot water. Arrange on crisp lettuce. Garnish with mayonnaise. Serves eight.

Caramel Junket

2 c. milk
1/2 c. sugar
1/2 c. boiling water
1 junket tablet
Few grains salt
1 tsp. vanilla
Whipped cream (sweetened and flavored)
Chopped nut meats.

Heat milk until lukewarm. Caramelize sugar by placing in a pan—covering with enough water to dissolve the sugar, then cooking until all water is evaporated and the sugar is a delicate brown. Add boiling water, cook until syrup is reduced to one-third cup. Cool, and then add milk slowly to syrup. Dissolve junket tablet in a little milk. Add to mixture, making certain it is lukewarm and not hot. Add salt and vanilla. Pour into glasses and do not disturb until set. Then chill. Cover with whipped cream and sprinkle with nut meats.

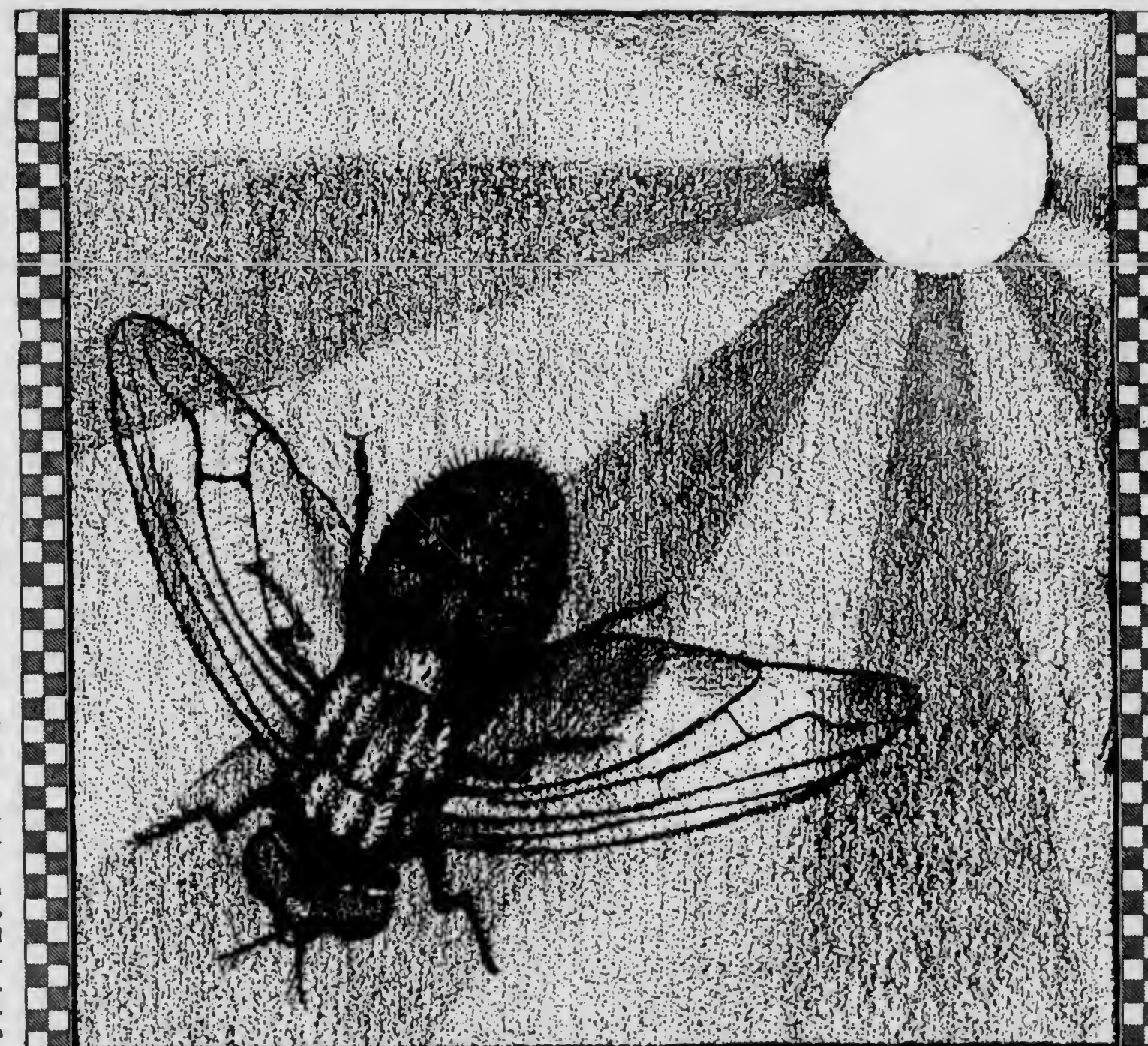
Philadelphia Inter-State Dairy Council

General Offices
Flint Building, Philadelphia
A co-operative movement established for the dissemination of information and publicity pertaining to the production and distribution of dairy products and their food value in nutrition.

Affiliated with the National Dairy Council

Officers
Dr. Clyde L. King, President
H. D. Allebach, Vice President
R. W. Balderston, Executive Secretary
R. J. Harrison, Jr., Treasurer

Departmental Branches
C. L. Cohee, Director Quality Control Department
Lydia M. Broecker, Nutrition Department
Del Rose Macan, Dramatic Department



Meet August Perils

The lowest milk production of the year comes this month. Flies are worrying the cows, heat saps their vitality and dried up grass deprives them of milk-making food material.

Cool off your cows with Purina Bulky-Las. It is made to keep cows cool and

in condition. Keep them milking with Purina Cow Chow. It furnishes the food materials needed to make milk.

Order from the store with the checker-board sign.

PURINA MILLS, 854 Gratiot Street, St. Louis, Mo.
Sold at the stores with the checkerboard sign in the United States and Canada

PURINA CHOWS
16% COW CHOW 20% 24% COW CHOW 34%
... CALF CHOW ... BULKY-LAS ...

Philadelphia Inter-State Dairy Council

The various departments are at your service and will assist you in planning
EDUCATIONAL ENTERTAINMENT

for your Community, Local or Club Meetings. Lecturers, Speakers, Motion Pictures, Lantern Slides, etc.

R. W. BALDERSTON, Sec'y, 219 North Broad Street, PHILADELPHIA

The McCormick-Deering Potato Digger

Rod-link diggers in 6-foot 2-horse; and 7-foot, 4-horse sizes; with shaker and vine turner, or extension elevator delivery. Also 6-foot 2-horse riddle-type diggers, with shaker and vine turner.

It Digs the Potatoes
Shakes Dirt Off,
and Puts Them in Rows



THE McCormick-Deering Potato Digger changes the hardest job in potato growing to almost a pleasure. It speeds up the harvest, does away with a lot of hired help, and cuts harvest costs so low that a good profit is assured.

It's a wonderful feeling to sit on the seat of this digger and see it root out every hill without cutting or bruising. You will like the way the adjustable apron shakes the potatoes free of vines, dirt, and stones. The ease of gathering the clean, trash-free rows of potatoes will surprise you. Users say it is easier to pick up behind a McCormick-Deering than any digger they have ever used. Faster gathering saves you money, too, because it reduces losses due to sunburn and exposure.

THE INTERNATIONAL HARVESTER COMPANY OF AMERICA
Philadelphia Baltimore Harrisburg

"Holsteins of the Better Sort"

Registered, Blood Tested for Abortion, and from Fully Accredited herds. Some are imported and bred to the World's most famous bulls. Some are bred to our Prince Aaggie Aralia Mead, the full brother of Prince Aaggie of Berylwood, the famous \$110,000 sire. Some have high production records. Few priced as low as \$250. WM. H. LANDIS, Bell Phone Pennsbury 96R21, East Greenville, Pa.

Pennsylvania Leads in Co-operative Dairy Sire Work

With seventy-three bull associations operating in that state, Pennsylvania leads all the states in the union in that phase of dairy improvement work.

There are 260 pure bred sires in the group. Of these 149 are Holsteins, 51 are Guernseys, 42 Jerseys, 12 are Ayrshires and 6 are Brown Swisses.

Bull Association work started at Grove City, Pa., in 1916, where R. R. Welch, organized two associations in a community dairy improvement project, supervised by the U. S. Department of Agriculture. Since 1924, 10 new associations have been organized each year.

"Yes, me and Bill are in partnership in this selling game, but we don't carry the same goods."

"Explain yourself."

"Well, Bill goes around selling a stove polish that leaves a stain on your fingers, and two days later I go around with the only soap that will take it off."

—Successful Farming

Once Ab says time spent in grieving for the past is time lost in getting ready for the future.

Hadn't Told the Bull

A story is told of a certain English politician who thought everybody knew or ought to know him. One day he was walking through a field when a bull addressed him in an undertone and made for him with his head down.

The politician was a man of dignity and political power. But he ran. He ran surprisingly well and reached the fence before the bull. He clambered over, out of breath and dignity, and found the owner of the bull contemplating the operation.

"What do you mean, sir," asked the irate politician, "by having an infuriated animal like that roaming about the field?"

"Well, I suppose the bull has some right in the field," said the farmer.

"Right? Do you know who I am?"

The farmer shook his head.

"I am the Right Honorable Sir—"

"Then why on earth didn't you tell the bull?" said the farmer.

An Unfinished Egg

James, 5, and John, 3, took great delight in gathering eggs. One afternoon they found a soft-shelled egg.

"James," said John, "put it back in the nest right away so the hens can finish it."

—Capper's Farmer.

Bacteria Multiply When Milk Is Warm

Tests show that milk kept for 12 hours at 50 degrees F. has a bacteria count of 18,000, as compared with a count of 55,300,000 when kept for 12 hours at 80 degrees F.

A low bacteria count means less loss from souring, higher quality and consequently higher price.

Use Concrete Cooling Tanks

Your market requirements for quality can be met by the use of concrete for cooling tanks, stable floors and mangers. Concrete is sanitary, easy to clean and keep clean and requires no repairs.

Portland Cement Association

1315 Walnut St.
PHILADELPHIA

Please send me your free booklet on "Permanent Farm Construction."

Name.....

St. Address (or R. F. D.).....

City.....

State.....

Report of the Quality Control Department Philadelphia Inter-State Dairy Council

The following is a report of the work done by the Quality Control Department of the Dairy Council for the month of June, 1929.

No. Inspections Made.....	2470
Sediment Tests.....	1696
No. Permanent Permits Issued.....	343
No. Temporary Permits Issued.....	200
No. Meetings Held.....	3
Attendance.....	175
Reels Movies Shown.....	2
No. Man Days.....	0
Fairs and Exhibits.....	0
Bacteria Tests Made (Plants).....	37
No. Miles Traveled.....	22279

During the month 78 dairies were discontinued from selling for failure to comply with the regulations—16 dairies were reinstated before the month was up.

To date 136, 984 farm inspections have been made.

Report of the Field and Test Department Inter-State Milk Producers' Association

The following statistics show the average operations of all the Inter-State Milk Producers' Association field men in connection with testing, weighing and general membership work for the month of June, 1929.

No. Tests Made.....	6278
No. Plants Investigated.....	51
No. Membership Calls.....	329
No. Calls on Members.....	177
No. New Members Signed.....	111
No. Cows Signed.....	814
No. Transfers Made.....	34
No. Meetings Attended.....	10
No. Attending Meetings.....	468

Better Sires Increase Dairy Herd Production

Good breeding improves the milk flow in Pennsylvania dairy herds.

Records on 48 bull association sires show an increase of 28 per cent in milk production and 13 1/2 per cent in butterfat production of daughters over dams, according to S. J. Brownell, assistant dairy extension specialist of the Pennsylvania State College. All of the records were computed to maturity.

In the Tioga association 48 daughters of bull association sires revealed an increase in production of 43.7 per cent over their dams. Seven animals in the Lovejoy association showed an increase of 50.88 per cent.

The Poor Boy

City Urchin (in the country for the first time)—"This is just like grass, ain't it?"

Little Friend—"Why, it is grass, Chim-mie."

Urchin—"No, it ain't, cos yer don't have to keep off it."

Real Compensation Insurance

Our policies furnish compensation protection as required by the Compensation Act and in case of accident pays benefits according to the Act.

We protect the employer, 24 hours in the day, regardless of when or where an accident might occur.

We paid a dividend for 1928 of 18%.

This Company made a gain of 30% in its premium writings for 1928.

This Company was organized by the sawmillmen, threshermen and farmers and is controlled by these interests.

Pennsylvania Threshermen & Farmers' Mutual Casualty Insurance Company

311 Mechanics Trust Building, Harrisburg, Pa.

WRITE for detailed information, as to costs, etc.

I am interested in having Casualty Insurance for my help and protection for myself, 24 hours in the day. I estimate my payroll

for the year at

Occupation.....

Name.....

Address.....

Leaves cans sweet and clean

WHETHER you wash milk cans by hand or by machine, you can depend upon Oakite to rid seams of every trace of dried milk; to remove dirt and grime without leaving soapy films or greasy spots. Moreover, Oakite cleaning is safe and economical. Let us send our nearby Service Man to help you with your cleaning problems. A postal to us will bring him.

Oakite Service Men, Cleaning specialists are located in the leading industrial centers of U. S. and Canada.

Manufactured only by
OAKITE PRODUCTS, INC.
34 F. Thames St., NEW YORK, N. Y.

OAKITE
Industrial Cleaning Materials and Methods

Let Us Design Your Stationery
Horace F. Temple
Printer
Bell Phone No. 1
WEST CHESTER, PA.

High Grade Dairy Cows

in
HIGHTSTOWN, N. J.
We handle all kinds of cattle
Holsteins—Guernseys—Jerseys
A Specialty

All cows tuberculin tested and sold subject to a 60 or 90 day retest and fully guaranteed in every respect.

Free delivery any distance.

B. ZAITZ & SON

202 Mercer Street
Hightstown, N. J.

Phone 72

The Robert Morris

17th and ARCH STREETS
Rooms all outside and with bath. All beds equipped with box springs and Nachman inner hair spring mattresses.

RADIO IN EVERY ROOM

Single rooms... \$3.00 \$3.50 \$4.00

Double rooms... 4.50 5.00 6.00

LUNCHEON .60 and .75

DINNER \$1.00, \$1.15, \$1.50

Flies "seriously diminish the Milk Flow"

[Says dairyman Jared Van Wagonen, Jr., in his book, "The Cow," published by Macmillan Co. Page 59.]

The cow's business is to make milk, and the time she wastes swinging her head is just so much out of your milk supply. Klip is the only cow-spray that is guaranteed to keep cows free of flies while milking, and for long periods in the pasture.

For five years three state entomologists and a state Agricultural Experimental Station worked developing Klip. This new cattle spray is made by the makers of Fly, the world's greatest household insecticide. Klip kills every fly it hits, and it is the only cow spray which, by agricultural experiment station tests, gives complete protection against cow flies (horn flies) in stable and pasture.

It can't taint milk, can't stain, and is absolutely harmless to cattle, even if licked. Use it on cows, horses and mules.

On sale at Hardware, Feed, and Farm Supply Dealers in one gallon cans (\$4.50) and five gallon cans (\$11.45). If your dealer hasn't got his supply yet, order direct from us. Be sure to send your dealer's name when ordering. Address: Stanco, Inc., 2 Park Ave., New York City.

KLIP
NO FLIES ON US
Reg. U. S. Pat. Off.

STANCO INC., Dairy Division, 2-A Park Ave., New York City
I'm willing to be shown. You can send me a pint of Klip, FREE, and I'll try it.

I have.....milk cows.....horses and mules.....other stock.

My dealer is.....

His address is.....

My Name.....

Address.....

New De Laval Magnetic Milker Supremacy Sensationally Recognized

THE manner in which dairymen the country over have recognized the all-around supremacy of the new De Laval Magnetic Milker has been nothing short of sensational. Hundreds of these new milker outfits have been installed for use with herds of every size and character. Users are unanimous in declaring this modern method of milking cows another stride forward in the reduction of the time and labor required for milking, in enabling the production of cleaner milk with greater ease, and the definite assurance of a better job of milking day after day.

* * * * *

From the first announcement the new De Laval Magnetic Milker has been swept into prominence by the swift current of popular interest and approval. The ingenious application of electro-magnetic force, by means of which the pulsations are created and controlled, has engaged widespread attention, and many articles have appeared in the leading newspapers and farm and dairy publications commending the progressive step through which one of industry's hardest and most efficient workers has at last been harnessed for the agricultural field.

* * * * *

De Laval policy has always been to create and maintain the highest standards—in products and service. It is therefore with honest pride that the De Laval Company acknowledges the splendid recognition given the new De Laval Magnetic Milker.

* * * * *

If you have not already seen this new milker that has created new high standards of milking efficiency and economy, ask your nearest De Laval dealer to demonstrate it on your own farm, or send coupon to the nearest office below for complete information.

Send
Coupon

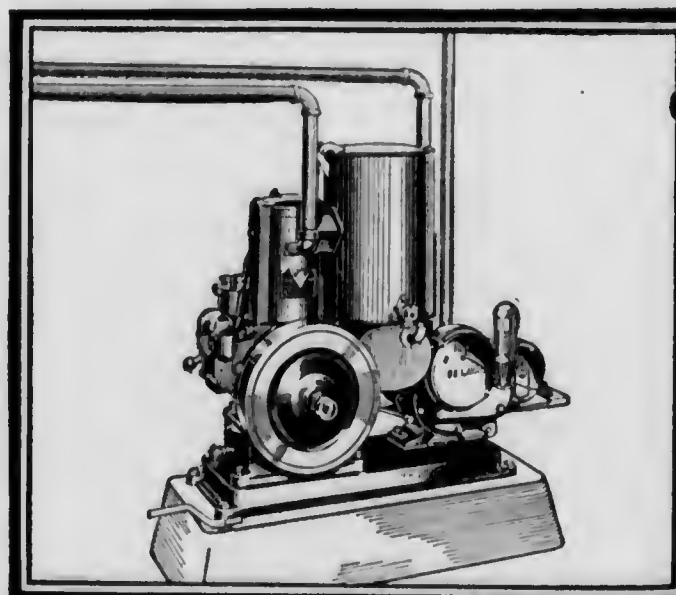
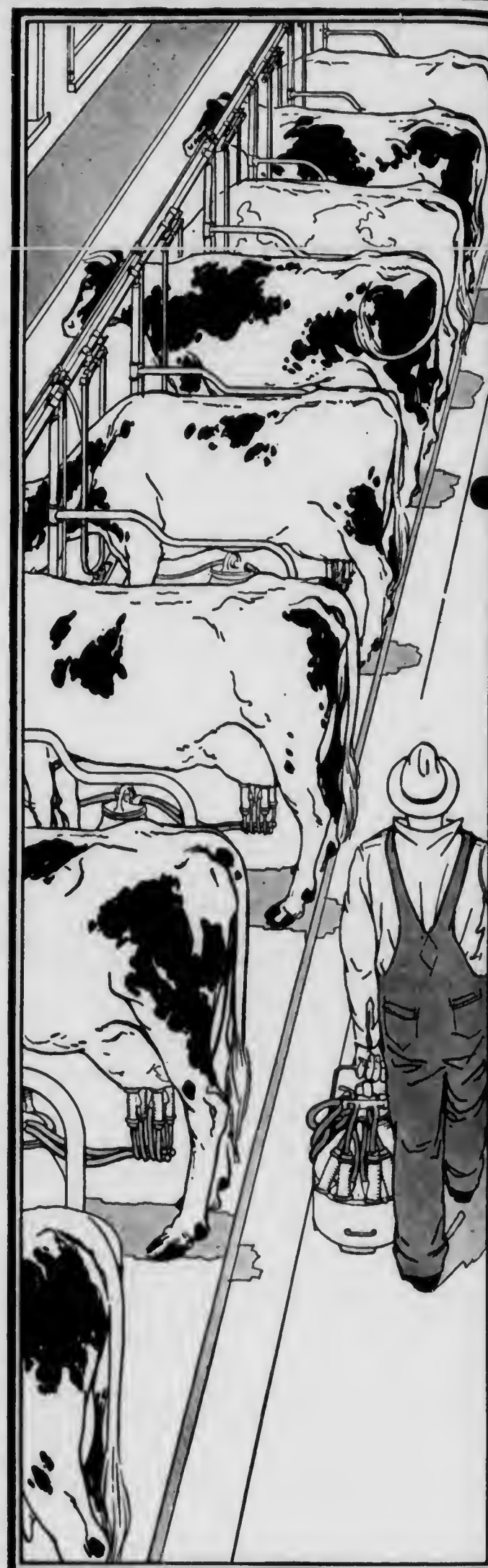
THE DE LAVAL SEPARATOR COMPANY, Dept. 9845
New York, 165 Broadway
Chicago, 600 Jackson Blvd.
San Francisco, 61 Beale St.

Please send me, without obligation, full information on: ☐ Milker ☐ Separator ☐ check which

Name.....

Town.....

State..... R.F.D..... No. Cows.....



The new Alpha Dairy Power Plant is designed for use in the dairy and is built like a modern automobile engine. It has many exclusive features such as an automatic governor control, oil pump, counter-balanced crankshaft running on roller bearings, and many others. In addition it has a built-in water heater that heats water at no extra cost for washing the milker while the engine is being run for milking—an exclusive feature.

Milk Producers Review

ISSUED MONTHLY IN THE INTEREST OF THE DAIRY FARMER BY THE INTER-STATE

Vol. X

West Chester, Pa., and Philadelphia, Pa., September, 1

Pennsylvania's New Milk Regulations

Dairymen through Pennsylvania are much interested in an Act that was adopted at the last session of the Legislature and signed by the Governor entitled—"An Act to safeguard human health and life by providing for the licensing and regulation of persons and entities dealing in milk for human consumption; conferring powers and imposing duties on the Secretary of Health and the Advisory Health Board, and otherwise providing for the administration of the act; and imposing penalties."

This bill was designed with several purposes apparently in mind,—first, to license the sellers of milk through the state. It requires that each person desiring to sell milk shall annually make application to the Secretary of Health for a permit. This applies only to parties selling milk directly to the consumer and not to producer shipping to a milk dealer who is himself licensed.

The bill further provides that the applicant for a license shall name the designations of the milk to be offered for sale, the name of the municipality in which milk is to be sold and that every applicant for a permit shall, upon demand of the Secretary, submit for approval the results of sanitary inspection of each dairy farm from which milk is purchased. The bill provides that the inspection of farms shall be done by licensed inspectors.

Among the provisions of the bill are requirements that every farmer must be provided with a milk house or a milk room, and such building shall be used exclusively for the handling of milk. Certain general requirements covering the stables, feeding of cows, etc., are also mentioned.

A careful study of the act indicates that dairies now meeting the requirements of the Philadelphia Inter-State Dairy Council and of the Dairymen's League, as well as the ordinances of many of the cities and boroughs within the state will meet the provisions of this act.

It is expected that the field forces of the Dairy Council will be licensed as approved inspectors so that this Act will, to no appreciable extent, affect dairies selling to dealers now co-operating with the Dairy Council. Producers of milk, however, selling to non-cooperating dealers are faced with the necessity of constructing milk houses and meeting the other provisions of the Act.

Producer dealers, or farmers selling their own milk directly to the consumer without pasteurization, must obtain a license and meet a number of provisions of the Act designed to safeguard raw milk supplies. Among the provisions for the sale of raw milk directly to the consumer is the requirement that the milk shall be from cows "determined by physical examination and tuberculin test conducted in accordance with the rules, regulations and practices of the State Department of Agriculture pertaining to the individual accredited herd plan or the modified accredited area plan, to be free from communicable disease." It further provides that a milk house or milk room shall be provided and used exclusively for the handling of raw milk and an adequate supply of steam or hot water should be provided for the cleansing of milk utensils and containers. The bill also provides that milk to be sold as raw milk shall be bottled and capped without any part of

(Continued on page 10)

PRICE OF MILK ADVANCES

Beginning Sept. First
and until further notice

The Price of Milk
to Our Producers Will
Be Increased

25 cents per 100 pounds

The recent price increase was arbitrated before Dr. Clyde L. King, after four days of conference between the representatives of the Inter-State Milk Producers' Association and the Buyers of milk in the Philadelphia Milk Shed.

Dr. King stated his decision as follows:

The farmers will receive 25 cents additional per hundred pounds on all basic milk sold, both "A" and "B," there shall be no increase to the consumer on pints of milk or on cream; and the increase to the consumer shall be 1 cent on quart packages only.

The calculations for the decision are as follows:

1. The distributors explained that they could not raise the price on pints from 8 cents to 9 cents when quarts were only 14 cents. One-fourth of the retail distribution is estimated to be in pints and there being no increase on pints it was figured that of a theoretical increase of 1 cent per quart or 46 1/2 cents on a hundred pounds one fourth would be approximately \$.11 1/2
2. The drivers are paid on a commission basis, so increasing the price of quarts 1 cent or 46 1/2 cents on a hundred pounds of milk, it would give them approximately .04
3. Dr. King also figured that due to the temporary shrinkage of sales, which inevitably follows a price increase, whereby some of the basic milk must be sold in the form of a manufactured product (and with no increase on cream prices to the consumer) would give approximately an additional .06

The sum of the above figures is \$.21 1/2

Adding to the figure the increase in price paid the farmer on his basic milk .04

Total \$.46 1/2 or 1 cent per quart.

Proposed Changes in the Association By-Laws

The officers and directors of the Inter-State Milk Producers' Association have had under serious consideration for some time slight modifications of the by-laws of the Association. These have to do chiefly with the relationship of the member and his Association. Ever since the establishment of the Co-operative Division of the Bureau of Agricultural Economics of the United States Department of Agriculture, officers and directors have been in close touch with the Division with respect to the question of bringing our Association structure strictly in line with the provisions of the present co-operative marketing laws of the several states and particularly of the National government.

The Association laid before this Division its present form of charter, by-laws, and contract, and asked for a detailed opinion with respect to them. Representatives of the Co-operative Marketing Division in conference with our officers and attorneys, suggested that in order to keep our structure strictly in line with the laws some slight modifications were necessary. They pointed out that as organized in 1917 the by-laws provided for an organization of milk producers with stock certificates issued to such members in proportion to the number of cows kept by each, but the by-laws did not provide a means by which deceased members and those no longer interested in dairying could automatically be dropped from our active membership list. Gradually, over the years, as some milk producers went into other lines of activity, or died, there has accumulated on our membership list quite a number of those whose present address cannot be found, or who are not at all interested at the present time in the purpose for which the organization was founded. Representatives of the Department of Agriculture pointed out that unless some changes were made in the by-laws the proportion of these deceased or disinterested stockholders would increase and gradually bring the association into the position where it would not be construed to be in line with co-operative laws.

One of our attorneys, Vincent D. Nicholson, has prepared a form of amendment. This has been approved in substance by the representatives of the Co-operative Marketing Division of the Department of Agriculture and also by the Board of Directors of the Inter-State Milk Producers' Assn. At the last meeting of our Board of Directors it was decided that the matter was of sufficient importance to come before the next annual meeting of the Association. The Board therefore, by resolution, directed that the proposed by-law amendment be inserted in the call for the meeting to be held on November 19th and 20th.

Representatives of the Association will be available to explain the amendment in detail at local meetings throughout the territory so that our members can be informed and can instruct their delegates as to their wishes in this matter.

These changes in the set-up of the organization include an additional paragraph to be inserted in Article 15 of the by-laws, which will provide for the issuance of a new type of stock certificate. In addition to the above proposition it was suggested

(Continued on page 10)

American Institute of Co-operation Holds Fifth Annual Session in Baton Rouge, Louisiana

During July and August was held, at Baton Rouge, Louisiana, the fifth annual session of the American Institute of Co-operation, which was originated at the University of Pennsylvania in Philadelphia, in 1924. This time the Louisiana State University opened its doors for the sessions of the Institute.

The high points of the sessions this year were:

1. The launching of the National Co-operative Council, representing at its beginning nearly one million farmers, to give an overhead organization to represent the major agricultural commodity groups in matters where they have a common interest.

2. The presence during the first three days of Arthur M. Hyde, Secretary of Agriculture, and three other members of the Federal Farm Board, including its chairman, Alexander H. Legge. All four participated in the sessions and spoke on the program, Mr. Legge making his first public appearance as farm board chairman.



School of Agriculture Buildings, Louisiana State University

3. An evening program on the work of the Federal Farm Board and the work of the Institute was broadcasted by a network of 31 stations associated with the National Broadcasting Company.

4. The conferences on membership relations.

5. The conferences on public relations of co-operative associations.

During the sessions 1279 attendants registered from 33 states and two foreign countries, including 641 regularly attending and 638 Louisiana farmers who participated in one or more sessions.

Most of those attending the Institute from the northeastern part of the country were connected with the National Co-operative Milk Producers' Federation. F. P. Willis, R. W. Balderston and J. T. Plummer represented the Inter-State Milk Producers' Association. Mr. Balderston, a member of the Program Committee of the Institute presided at several of its sessions.

Executive Committee of the National Co-operative Milk Producers' Federation Holds Sessions

While at Baton Rouge they attended two sessions of the Executive Committee of the National Co-operative Milk Producers' Federation.

J. D. Miller, L. C. Chapin, George W. Slocum, and C. E. Sniffen, represented the Dairyman's League Co-operative Association.

C. E. Hough, General Manager of the Connecticut Milk Producers' Association, I. W. Heaps, of the Maryland State Dairy-men's Association, and John McGill, of the Maryland and Virginia Milk Producers' Association were present.

The President and the Secretary of the National Co-operative Milk Producers' Federation, Harry Hartke of Cincinnati, and Charles W. Holman, Washington,

D. C., were the official representatives of the Federation attending the Institute.

Other members were present from points in Ohio, and other Western states. Other well known visitors were Fred Breckman, former secretary of the Penna. State Grange, now the National Grange representative at Washington, and Mr. John D. Zink, general manager of the Eastern States Farmers' Exchange, and others.

Many interesting topics were discussed. Only a few of the high points of the Institute sessions can be outlined in this article. They include among others the following:

Secretary Hyde Stresses Organization of Agriculture

Without organization into co-operative business, American farmers can never benefit from the government's liberal policy toward agriculture especially in view of the policies of the new Federal Farm Board, Secretary, Arthur M. Hyde of the Department of Agriculture declared to an audience of 1500 Institute visitors at a night meeting in the University's outdoor amphitheatre.

Describing the government's attitude toward co-operative marketing by pointing out the ways in which it has assisted the movement in the past culminating in the creation of the Farm Board, Mr. Hyde said that most of the legal barriers had been removed, much experience and leadership gained, and many of the problems answered.

Legge Announces Farm Board's Policy

Alexander H. Legge, chairman of the Federal Farm Board, made the outstanding address of the Institute to a visible audience of 1500 and an invisible audience of the millions who listened in on the radio broadcasts of 31 stations connected by the National Broadcasting Company's network. It was Mr. Legge's first official public appearance.

In vigorous language, Chairman Legge outlined the policies of the Farm Board, declaring that its main purpose was to expand and strengthen the co-operative movements. By doing this, he explained the Board would be rendering the greatest possible service to American agriculture—"helping the farmer to help himself."

Reviewing the economic conditions



Dairy Barn, Louisiana State University

which account for agricultural depression and calling attention to the great problems faced by the Board, Mr. Legge set forth the aims of the members. Briefly, these are:

Encouraging the development of large-scale, central co-operative associations to serve as a stabilizing element and merchandizing agency in marketing, exerting some control over the flow of products to market.

Assisting farmers through co-operatives in buying and selling any commodity, but

not buying or selling itself, and advising on transactions where operations need government funds;

Co-operating with bona fide farmers business organizations and other governmental agencies in evolving plans whereby farm production and the demand for farm products may better correlated, to the end that wasteful surpluses or harmful shortages may be avoided to the maximum degree.

Mr. Legge said he was in complete sympathy with the co-operative move-



"Emmett's Raleigh Flora," Louisiana State University, Prize Jersey Cow.

ment for the reason that it remedied the cause for agriculture's inequality with industry. "Agriculture has operated as an individual enterprise," he said, "competing with organized effort in other industries—individual action and planning as compared with collective thinking and acting. The marked tendency in other industries is toward larger groups in which many minds collectively determine policies and plans and follow them through. These distinct differences between agriculture and other industries is the reason agriculture is not keeping pace with the other industries in the general progress of the country."

Mr. Legge complimented the leadership of the Institute in his opening remarks:

"There could be no more appropriate place for a statement of the policies of the Federal Farm Board than at this meeting of the American Institute of Co-operation. For more than four years the Institute has been a forum for the exchange of experiences and the development of policies in co-operative marketing. It has worked toward the co-ordination of the activities of the farmers' organization. Representatives of the co-operative associations who have participated in these sessions are to be congratulated on the progress which has been made."

Williams Warns Against Professional Promoters

A warning against professional co-operative organizers was issued by Carl Williams, member of the Federal Farm Board, in a five minute address heard not only by 1500 visitors and registered delegates but by the radio audience of the broadcasting network.

"There has come to the ears of the farm board from all over the United States word of professional promoters who are going about attempting to organize co-operative associations," he said. "I want to emphasize this and I want you to carry the message back home: farmers should get in with organized co-operative movements rather than attempt to organize new ones."

Teague Calls For More Extension Service Help

"The extension service of the United States government and of the state agricultural colleges should be devoted more

vigorously than they have been to the promotion of sound co-operative organizations," declared C. C. Teague, member of the Federal Farm Board. Mr. Teague, before appointment to the farm board, was president of the California Fruit Growers Exchange and President of the California Walnut Growers Exchange.

"Effort should be directed toward aiding the co-operatives in the regulation of the distribution of the shipments to the various markets so that all markets will be supplied according to demand condition. This is absolutely necessary to avoid gluts and famines," he said.

There are about 4000 extension agents and specialists in the extension system of the Federal and state governments. While they have aided materially in teaching the farmer how to produce more efficiently, Mr. Teague stated that they have given little attention to the more important question of marketing. "Studies must be made," he said "to train the extension men in co-operation methods and problems and to assist them in showing the farmers the fundamental soundness and success of the co-operative method."

"Farm advisors have not been more helpful in marketing so far because, except where public sentiment has strongly favored the co-operative movement, they have not dared to advocate actively co-operative marketing. Where they did so, complaints were filed with the universities by the speculative shippers who were interested in discouraging the movement. They pointed out that the universities represented all of the people and were supported by the taxpayers and if they expected to get the necessary political support for the appropriations necessary to these universities they had better instruct their men not to advocate co-operative marketing and in most cases they have not advocated co-operative marketing."

"I do not blame the universities or the



Louisiana Rice Field

extension departments. They are public servants and must be responsive to public opinion. But these agricultural departments were certainly created to educate and help the farmer, and if the greatest problem is marketing, why should not at least a part of the time of these extension advisors be devoted to educating and assisting the farmer in developing co-operative marketing, which is the only solution to his problem.

"If these universities have not undertaken this task, it is the fault of the farmer himself in not demanding that it be done; in other words creating an overwhelming public sentiment in favor of it. We now have that public sentiment in the nation, as evidenced in the Agricultural Marketing Act creating the Farm Board, which act has for its principal purpose the development of co-operative marketing. If the Federal Government, which is also supported by the taxation of the people, can actively advocate co-operative mar-

(Continued on page 7)

New Milking System Used On Federal Dairy Farm

A new system of milking cows which promises to reduce the cost and labor of milk production, facilitate the keeping of records, and produce a cleaner product, is being used at the United States Department of Agriculture dairy experiment farm at Beltsville, Md.

The new method was originated by R. R. Graves who is in charge of dairy cattle feeding, breeding, and management investigations in the Bureau of Dairy Industry.

Briefly, the system consists of a mechanical milking unit of standard make; but instead of the usual portable receptacle for the milk, it is drawn into a stationary container located between two stalls and somewhat above the cows. The receptacle is of unbreakable glass and is suspended from a weighing mechanism. Its transparency makes the rate of milking visible to the operator at all times, both by the amount of milk in the receptacle and by the weight registered by the scale. When the milk ceases to flow into the receptacle, the operator records the weight of the milking and opens a valve which permits the milk to be drawn from the bottom of the container through a stationary pipe line to a large vacuum tank in the dairy house nearby.

Thus the milk reaches the dairy house without having come in contact with the air, human hands, or any other contaminating agent. No milk is spilled on the floor to attract flies; in fact, no milk is in sight except that in the vacuum-tight glass receptacle.

Sterilization of the mechanical equipment is accomplished quickly and easily by running cold water from the dairy house back through the pipe line, the glass receptacle, and out of the teat cups into the gutter. This is followed by hot water and then steam.

A reduction in labor is effected with this system in a number of ways. The milk is drawn to the dairy house automatically and there is no handling of buckets or other milking utensils. Nor is it necessary to strip the cows to finish milking. The udder is massaged while the teat cups are still in place, and the transparency of the glass receptacle permits the operator to see when the cow is giving no more milk. One operator can handle three or four milking units, milking three or four cows at the same time.

At the department farm one man does all the milking with three units and has milked 29 cows three times a day and 25 cows twice a day in a total period of 5 1/2 hours. The milking is done in a special barn equipped with the three milking units and stalls for six cows. The cows enter from the feeding barns on either side of the milking barn, pass into their proper stalls from the rear, stop to be milked, and when finished pass forward and out to return to the feeding barn. No time is wasted in tying or fastening the cows. They are detained by movable gates hanging in front of each stall. As soon as one cow has been milked, the teat cups are taken off, the milk is drawn from the glass receptacle in about 22 seconds, and the teat cups are placed on the cow in the adjoining stall and milking started again. From the rear of the stalls the operator raises the gates to let out the cow after milking is finished, and another steps in to take her place. It is interesting to note how readily the cows learn the procedure and return to their right barns.

The new system not only reduces the labor incident to milking but favors the production of a cleaner product, Mr. Graves says. The milk in the vacuum tank can be cooled as it enters the tank, or it can be pasteurized and then cooled (Continued on page 11)

INTER-STATE SELLING PLAN

Effective October 1, 1929

INTER-STATE MILK PRODUCERS' ASSOCIATION, Inc.

219 N. Broad Street, Philadelphia, Pa.

Memorandum of Conference held August 28, 1929, revising memoranda of conference held June 5, 1928.

Milk will be sold in the following classifications:

Basic and Surplus Under Such Conditions as Are Herein After Defined.

ESTABLISHED BASIC QUANTITY

Producers shall receive each month, basic price for their "Established Basic Quantity," as hereinafter defined.

BASIC PRICE

The basic price will be established, as heretofore, by conference.

METHOD OF DETERMINING ESTABLISHED BASIC QUANTITY

The established basic quantity of each producer used during the first nine months of 1929 shall continue to be his established basic quantity during October, November and December, 1929.

The following provisions shall apply in determining basic quantities under the Inter-State Selling Plan to be used during 1930.

OLD SHIPPERS

The basic quantity of each old producer to be used during 1930 shall be established by adding together the three following items and dividing the sum thereof by three:

1. Established basic quantity used for 1928 payments.
2. Established basic quantity used for 1929 payments.
3. Average production made in Oct., Nov., and Dec., 1929.

EXCEPTION—The basic quantity of any producer starting to ship during October, November or December, 1927, shall be established by adding together the three following items and dividing the sum thereof by three:

1. Average production made in Oct., Nov., and Dec., 1927.
2. Established basic quantity used for 1929 payments.
3. Average production made in Oct., Nov., and Dec., 1929.

OLD SHIPPERS WITHOUT 1928 BASIC QUANTITIES

The basic quantity for 1930 of any producer having no established basic quantity for 1928 payments, shall be determined by adding together the three following items and dividing the sum thereof by three:

1. Established basic quantity for 1929 payments.
2. Average production made in Oct., Nov., and Dec., 1928.
3. Average production made in Oct., Nov., and Dec., 1929.

INITIAL TUBERCULIN TEST 1929

Any producer whose cows undergo an initial test for tuberculosis during the year 1929 may elect to have used as his established basic quantity during 1930 either, first, the basic quantity used during 1929, or second, the established basic quantity determined in accordance with the provision governing "old shippers."

NEW PRODUCERS FROM JANUARY 1, 1929 TO SEPTEMBER 30, 1929

Any producer starting to ship on or after January 1, 1929, establishing a basic quantity on a basis of 50% of the first thirty days' shipment or any other basic not above 70% of same, shall during October, November and December, 1929, receive basic price for 70% of his production in each of those three months. His established basic quantity for 1930 shall be 70% of the average daily production made in October, November and December, 1929.

NEW PRODUCERS AFTER OCTOBER 1, 1929 UNTIL DECEMBER 31, 1929

Any producer starting to ship on or after October 1, 1929, and prior to January 1, 1930, shall during October, November and December, 1929, receive basic price for 70% of his production in each of those three months. His established basic quantity for 1930 shall be 70% of the average daily production made in October, November and December, 1929, computed by taking the sum of his daily shipments dividing same by the number of days shipping and multiplying the quotient by thirty.

NEW PRODUCERS JANUARY 1, 1930 AND UNTIL FURTHER NOTICE

Any producer starting to ship after January 1, 1930, shall establish a basic quantity on a basis of 70% of his first thirty days' shipment.

SURPLUS QUANTITIES

Each producer is to receive the surplus price for that portion of his production in excess of his "Established Basic Quantity."

SURPLUS PRICE

The surplus price shall be established by the following method:

1. Determine the average price of 92 score solid packed butter at New York City, by adding all daily quotations between the 28th of the previous month, the 27th of the current month and divide the sum by the number of quotations included.

2. Multiply this average butter price by four and to this figure add 20% of the same. The result will be the price of first surplus milk of four% butterfat content at all receiving stations at railroad points. To determine the price of direct shipped surplus milk, add \$.5755 per hundred pounds to cover usual differentials for freight, receiving station charges, etc.

REMOVALS

In case of tenants changing from one farm to another, or farm owners selling out and purchasing a farm elsewhere, and who, by this procedure, change buyers of their milk, it is definitely understood that the basic quantity established goes with the cows.

SPECIAL CASES

Special cases where one or more producers change to new buyers are open to agreement between such producers, buyers and the Inter-State Milk Producers' Association.

A committee of two, one representing the producers and one representing the buyers, shall be charged with the duty of making the computations of the surplus price each month. They shall immediately announce the result of their computations to all parties concerned.

The usual butterfat differential of four cents for each one-tenth point, and two cents for each one-half-tenth point of butterfat, shall apply to surplus milk as well as to basic milk.

This memorandum covers all points in the territory. Any of the parties interested reserves the right to ask for a conference with respect thereto at any time.

10th Annual Montgomery County Farmers' Picnic

Memorial Park, Schwenksville, Pa., was again the scene of the Tenth Annual Montgomery County Farmers' Picnic, held on August 6th and 7th. Again there was a record attendance with more than 5000 on the first and nearly equalled that number on the second day. Over 1200 automobiles were parked on the grounds during the first day of the picnic.

The usual exhibits at the Picnic included automobiles, farm equipment, and implements, feeds, electrical equipment for the home and farm furniture, radios, house fixtures, and a variety of other articles. The dairy exhibit was large and embraced animals and cows of the various dairy breeds.

Dairy Cattle Judging

In a dairy cattle judging contest for type and milk producing qualities, W. C. F. Randolph, Royersford, R.D., was first; Joseph O. Camby, Hulmeville, second and Marshall Jones, West Chester, third.

In a contest for the highest milk producing cow and the closest estimate of her yearly production rate: first prize went to James Baker, Center Square, second to Warren S. Reed, Lansdale and third to C. D. Kagey, Gratersford. The best cow in the class shown produced 15,233 pounds of milk in one year. Another class of five cows was judged for their total aggregate milk production for one year. The winners in this class were: first, C. E. Longacre, Royersford; second, Joseph O. Camby, Hulmeville; third, Woodrow Kagey, Gratersford. The total aggregate production for the five cows for one year was 61,984 pounds.

In the awards for Holstein-Friesian cattle exhibited at the Picnic, prizes were distributed between H. D. Allebach, Trappe, Pa., and William H. Landis, East Greenville, Pa. The awards were as follows: Aged cow class—W. H. Landis, first, second and fourth; H. D. Allebach, third and fifth; two to three year old class—H. D. Allebach, first and second; W. H. Landis, third; in the one to two year class, H. D. Allebach took first, third and fourth while Mr. Landis took second. In the calf class, Mr. Landis won first, second, fourth and fifth while Mr. Allebach took third. The grand champion cow was an aged cow, "Spring Bank Acme," Greenville, owned by William H. Landis.

In the Guernsey class the placings were as follows: Aged cow class—first, Lakeholme Laddie; second, Jethro's Laddie of Harrison; yearling class—first, Christine of Maple Lawn; second, Maple Lawn Fancy; third, Uneta Missie of Maple Lawn; calf class—first, Flashlight's Gold Lassie; second, Flashlight's Easter Rose. The Grand Champion was Lakeholme Lassie in the aged cow class.

All the winnings in the Guernsey Cattle Classes were won by Isiah Cassel, Harleysville, Pa.

S. J. Brownell, dairy specialist of the Extension Department of Pennsylvania State College, acted as judge.

The committee in charge of the arrangements for the Picnic included H. D. Allebach, chairman; James I. Iod, R. G. Waltz, county agent, and P. A. Metz.

New Beetle Appears

The Asiatic beetle has been discovered in the Japanese beetle area near Philadelphia. It causes damage similar to the injury inflicted by the Japanese beetle and is controlled in the same way. At present the Asiatic beetle does not threaten to cause serious damage, but it is under quarantine.

INTER-STATE MILK PRODUCERS REVIEW

Official Organ of the
Inter-State Milk Producers' Association, Inc.
August A. Miller, Editor and
Business Manager
Frederick Shangle, Advertising Manager
Published Monthly by the Inter-State Milk
Producers' Association, Inc.

Business Office
Flint Building, 219 N. Broad St., Phila., Pa.
245 E. Chestnut, West Chester, Pa.
Editorial and Advertising Office
Flint Building, 219 N. Broad St., Phila., Pa.
Bell 1 lines, Locust 5391, Locust 5392
Keystone Phone, Room 5344
Printed by Horace F. Temple, Inc.
West Chester, Pa.

Subscription
50 cents a year in advance
Advertising rates on application
"Entered as second-class matter, June 3, 1920,
at the post office at West Chester, Pennsylvania
under the Act of March 3, 1879."



If you will read the announcement on Page 1, of this issue of the REVIEW, you will note that the price of milk has been increased.

Undoubtedly, this increase will be of assistance to our farmers since it keeps the price of milk more nearly in line with the advancing costs of production.

It is evident that throughout the territory the supply of roughage and of grain will be short. It is to be hoped that the producers generally will utilize this evenly throughout the winter feeding period so that we may not have much larger supplies during the so-called basic months, than during the latter part of the winter.

Undoubtedly some farmers, especially those who have gone through the T.B. test, will see an opportunity to increase the size of their herds. Others will be culling out "border" cows.

There is every reason why, over the territory as a whole, there should continue the safe and sane policy, which has characterized our membership in the past.

The farmers of the country have reason to congratulate themselves on the caliber and character of the men who make up the new Farm Board.

When the last issue of the REVIEW went to press we were unable to give a complete outline of the Board as all of the members had not been appointed.

Chairman Legge, formerly President of the International Harvester Company, was not as well known to the farmers of the country. He has, since his appointment, made such a markedly favorable impression on those who have come in contact with him directly or indirectly that it promises much for the future of this new governmental agency.

The public announcements which have been made by all members of the Board have given an enlarged feeling of confidence that they will be able to solve the present pressing problems of agriculture.

It may be disappointing at first, but they will not be able to perform miracles at once. We must remember that the present problems of agriculture are of long standing, and we note with satisfaction that the Board is going to take time to study the problems from every standpoint and not move until they are sure of their ground.

It is particularly gratifying to note that they propose to work as fully as possible through existing co-operative agencies of the country.

The Institute of Co-operation has become one of the great agricultural educational institutions of the country. It has done much more than is as yet generally realized to focus public attention on

the importance of sound co-operative marketing in solving the farmer's problems. It will not be surprising when historians say that the Institute of Co-operation was responsible in a small measure for the present favorable governmental attitude toward agricultural co-operation.

It is a matter of unusual significance that Chairman Legge of the Federal Farm Board saw fit to make his first public announcement regarding the policies and plans of the Board at the Institute of Co-operation recently held at Baton Rouge, Louisiana.

It is also significant that Mr. Legge had with him a number of members of his Board, and that during the sessions of the Institute they met with and discussed a large number of important problems of co-operative organizations of the country.

A large proportion of the members of the Board were personally known to agricultural co-operative leaders previous to their appointment. Quite a number of them have been themselves active co-operative executives in successful enterprises.

The Thirteenth Annual Meeting of the Inter-State Milk Producers' Association will be held this year on November 19th and 20th. The meetings will be held in the Benjamin Franklin Hotel, in Philadelphia.

Every local unit of the Association should be represented by official delegates. Under the present plans of the organization one official delegate comes from any local having from 25 to 100 members and one extra delegate for each additional 100 members or fraction thereof. Official delegates attend the meetings at the expense of the association. These expenses include traveling expenses and \$2.50 for one night's lodging.

Locals should plan now for meetings to elect delegates and to discuss various programs for action at the Annual Meetings.

At an early date blank proxy forms will be sent the officers of the various Locals for distribution among the members of the Locals who will be unable to attend the meetings, but if at all possible attend the meeting and see for yourself just what the association has done during the past year and what its plans may be for the future.

Your association is planning for the entertainment of the ladies accompanying the members and delegates. The Annual Banquet will present the usual features. You will enjoy it as you will the general sessions of the meeting.

Make your plans to attend this meeting. It will be of extraordinary interest from many angles.

September Milk Prices

Inter-State Milk Producers' Association, Inc.

The price paid for basic milk by co-operating dealers during September, 1929, will, subject to market conditions, carry an advance of 25 cents per hundred pounds above the price quoted for August, 1929. Milk sold to co-operating dealers will be paid for on the basic and surplus plan.

Class I Surplus milk will be paid for by co-operating dealers on the average price of 92 score, solid pack butter, New York City, plus 20 per cent. Class II Surplus has been eliminated, under the Philadelphia Selling Plan, during the remainder of the year.

Market Conditions

H. D. ALLEBACH

As has been announced on the first page of this issue of the "Review" and in many of the newspapers in our territory, the price of milk to be paid to the producer, beginning September 1st, was increased 25 cents per hundred pounds. This advance made it necessary to increase the price of quart bottles 1 cent to the consuming public. There was no increase to the consumer on pint bottles or in the price of cream.

After meeting with our buyers of milk on four different days and having reached no agreement, the buyers and farmers agreed to arbitration and that the arbitrator should be Dr. Clyde L. King. The time set for arbitration was Wednesday, August 28th.

After hearing detailed statement of the situation from both the farmers and the distributors, Dr. King finally decided on the price basis named above.

Numerous factors involved in the necessity of an advance in price, were, the higher costs of feed, the extremely dry weather conditions, there being practically no pasture in many sections at present, very little second curing of hay, and the very short corn crop in many sections of the territory.

The increase in the milk price puts our retail price to the consuming public on a level with some of the other nearby cities, but not above any of them.

The new basis will make the price of milk delivered to Philadelphia, \$3.94 per hundred lbs. for 4% milk and the price in the 51-60 mile zone \$3.36 per hundred lbs. for 4% milk.

Our surplus price will continue as heretofore and it will be figured on the same basis.

At this conference with the buyers it was agreed that we continue on the three year average basic plan for establishing basic quantities, the same as we have done in the past year. Our plan is to take the amount paid for in 1928, the amount paid for in 1929, and the one made during October, November and December of this year. The sum of the total of these amounts is to be divided by three to obtain the average basic amount to be used in 1930. With this in view every producer should endeavor to produce an amount of milk equal to his present basic amount during October, November, and December this year or probably just a little over it. But, if you get too far above it there is the possibility that the market will be flooded with milk, and necessitate a lower sales price level.

In order to hold a worthwhile price for milk we should be more careful to keep our production as nearly even as possible. An increased production in the fall of the year, and nothing during the rest of the year is highly undesirable. A decreased production in the fall and a heavy increase the rest of the year is even worse. Our aim is to level our production the year through. If we do that there is a possibility of keeping our price somewhere near the cost of production.

You should be careful that you do not feed all your roughage during the basic period and then produce no milk the rest of the winter because this will make conditions serious and might compel us to change some of the factors of our selling plan.

New producers will be paid basic for 70% of their first thirty days' shipment

Next winter's fuel supply should come from dead and down trees and from crooked and weed trees. Thus will the woodlot be improved.

until further notice and 70% of his October, November, and December production will be his basic for 1930. We are carrying on page three of this issue of the REVIEW the full outline of the basic and surplus plan for 1930, but I am putting it in my report so you will be sure to get it.

Milk production for July has not been as high as that of either May or June, but it was just a few per cent higher than that of July, 1928. This increase was caused by new producers in the territory.

August Milk Prices

Fluid milk prices under the Philadelphia Selling Plan, will be paid for by co-operating dealers, for the month of August, on the following basis:

Grade B Market Milk (basic quantity average) three per cent butter fat content, f.o.b. Philadelphia, is quoted at \$3.29 per hundred pounds or 7.1 cents per quart.

Grade B Market Milk (basic average) three per cent butter fat content, delivered at receiving stations in the 51 to 60 mile zone, for August, is quoted at \$2.71 per hundred pounds.

The usual butterfat differentials and freight rate variations, applying to other mileage points in the territory are shown by quotations on page 5, of this issue of the MILK PRODUCERS' REVIEW.

The price of "A" Milk under the usual butterfat differentials and prices in the different mileage zones in the territory and at "A" stations for August are quoted on page 5 of this issue of the MILK PRODUCERS' REVIEW.

Surplus Prices

The price of Class I surplus milk for August, three per cent butterfat content delivered f.o.b. Philadelphia is quoted at \$2.23 per hundred pounds or 4.8 cents per quart. The price of Class I surplus of the same butterfat content, at receiving stations is \$1.65 per hundred pounds.

August Butter Prices

Fluctuation in butter prices during the month were extremely narrow. While there has been a marked change in the general dairy situation there have been developments, both favorable and unfavorable, in a number of individual dairy commodities.

Production conditions have been affected by somewhat less favorable pasture conditions, while there has been a somewhat less favorable production situation in condensed and evaporated milks.

Reserved stocks of all of the major dairy manufactured products are considerably higher than in the corresponding period of 1928, but this same condition has been noted during a number of months this year.

On August 1st, total storage holdings of butter amounted to 151,614,000 pounds compared with 120,437,000 pounds on August 1st, one year ago. This is 6,000,000 pounds higher than the previous high record of 1927.

Prices of 92 score solid packed butter, New York City ranged during August from 43 to 44 cents per pound. Quotations opened the month at 43 1/2 cents with fractional 1/2 cent fluctuations up or down from time to time. The month closed with quotations at 44 cents.

The average price of 92 score butter solid packed New York City on which the surplus price of milk for August was computed was .4358 cents as compared to .4236 cents in July and .4656 the average August price in 1928.

Damp weather and poor seed favor most of the losses from plant disease. The weather can not be controlled, but disease-free seed is a help.

LATEST MARKET PRICES

The basic price, quoted below for August, 1929, is to be paid by co-operating dealers on the average basic quantity sold, listed by each producer. For all milk bought in excess of the basic amount, the surplus price, quoted below for the month of August, 1929, is to be paid.

Surplus milk will be paid for under one classification. Class I, represented by the amount of milk in excess of the basic average and equal to it in amount, which will be paid for by co-operating dealers on the basis of 92 score butter, solid pack, New York City, plus 20 per cent.

The following quotations are based on 3 per cent butterfat content milk and a differential of 4 cents for each tenth point and 2 cents for each half-tenth point, up or down, and are for all road points. (Inland stations carry differentials subject to local arrangements.)

PHILADELPHIA SELLING PLAN

INTER-STATE MILK PRODUCERS' ASSOCIATION PRICES

This price list is issued with the understanding that it is net to the producers and that all buyers using it as a basis of payment to producers, shall in addition thereto make the following contributions and payments:

(1) To the Philadelphia Inter-State Dairy Council 2c per 100 pounds (46 2/3 quarts) of all milk purchased from any producer at prices listed herein.

(2) To the Inter-State Milk Producers' Association 2c per 100 pounds (46 2/3 quarts) of all milk bought from members of said Association.

(3) To the Philadelphia Inter-State Dairy Council 2c per 100 pounds (46 2/3 quarts) of all milk bought from other producers at prices listed herein.

The funds so derived are to be used by the recipients for improving standards of quality in production and distribution of milk in the Philadelphia Milk Shed, for improvements and stabilization of market and for an educational campaign advertising the food value of dairy products.

BASIC PRICE

August, 1929

F. O. B. Philadelphia

Grade B Market Milk

Test Per Cent	Per 100 Lbs.	Price Per Qt.
3.05	3.31	7.1
3.1	3.33	7.15
3.15	3.35	7.2
3.2	3.37	7.25
3.25	3.39	7.3
3.3	3.41	7.35
3.35	3.43	7.4
3.4	3.45	7.45
3.45	3.47	7.5
3.5	3.49	7.55
3.55	3.51	7.6
3.6	3.53	7.65
3.65	3.55	7.7
3.7	3.57	7.75
3.75	3.59	7.8
3.8	3.61	7.85
3.85	3.63	7.9
3.9	3.65	7.95
3.95	3.67	8.0
4.0	3.69	8.05
4.05	3.71	8.1
4.1	3.73	8.15
4.15	3.75	8.2
4.2	3.77	8.25
4.25	3.79	8.3
4.3	3.81	8.35
4.35	3.83	8.4
4.4	3.85	8.45
4.45	3.87	8.5
4.5	3.89	8.55
4.55	3.91	8.6
4.6	3.93	8.65
4.65	3.95	8.7
4.7	3.97	8.75
4.75	3.99	8.8
4.8	4.01	8.85
4.85	4.03	8.9
4.9	4.05	8.95
4.95	4.07	9.0
5.0	4.09	9.05

When milk is not tested the price f. o. b. Philadelphia is 8 cents per quart.

AUGUST SURPLUS PRICES

F. O. B. Philadelphia

Class I

Test Per Cent	Per 100 Lbs.	Per Qt.
3.05	3.23	4.8
3.1	3.25	4.85
3.15	3.27	4.9
3.2	3.29	4.95
3.25	3.31	5.0
3.3	3.33	5.05
3.35	3.35	5.1
3.4	3.37	5.15
3.45	3.39	5.2
3.5	3.41	5.25
3.55	3.43	5.3
3.6	3.45	5.35
3.65	3.47	5.4
3.7	3.49	5.45
3.75	3.51	5.5
3.8	3.53	5.55
3.85	3.55	5.6
3.9	3.57	5.65
3.95	3.59	5.7
4.0	3.61	5.75
4.05	3.63	5.8
4.1	3.65	5.85
4.15	3.67	5.9
4.2	3.69	5.95
4.25	3.71	6.0
4.3	3.73	6.05
4.35	3.75	6.1
4.4	3.77	6.15
4.45	3.79	6.2
4.5	3.81	6.25
4.55	3.83	6.3
4.6	3.85	6.35
4.65	3.87	6.4
4.7	3.89	6.45
4.75	3.91	6.5
4.8	3.93	6.55
4.85	3.95	6.6
4.9	3.97	6.65
4.95	3.99	6.7
5.0	4.01	6.75

MONTHLY BASIC PRICE OF GRADE B OR MARKET MILK

3 per cent butterfat content

Receiving

F. O. B. Phila.

station 50 mile zone per cwt.

1928	1929	1930
January	3.29	7.1
February	3.29	7.1
March	3.29	7.1
April	3.29	7.1
May	3.29	7.1
June	3.29	7.1
July	3.29	7.1
August	3.29	7.1
September	3.29	7.1
October	3.29	7.1
November	3.29	7.1
December	3.29	7.1
1929	3.29	7.1
January	3.29	7.1
February	3.29	7.1
March	3.29	7.1
April	3.29	7.1
May	3.29	7.1
June	3.29	7.1
July	3.29	7.1
August	3.29	7.1

COUNTRY RECEIVING STATIONS

August, 1929

Country Receiving Stations

Quotations are at railroad points. Inland stations carry differentials subject to local arrangements.

Prices are less freight and receiving station charges.

Freight Rates

1 to 10 incl. 2.68

11 to 20 " 2.73

21 to 30 " 2.78

31 to 40 " 2.83

41 to 50 " 2.88

51 to 60 " 2.93

61 to 70 " 2.98

71 to 80 " 3.03

81 to 90 " 3.08

91 to 100 " 3.13

101 to 110 " 3.18

111 to 120 " 3.23

121 to 130 " 3.28

131 to 140 " 3.33

141 to 150 " 3.38

151 to 160 " 3.43

161 to 170 " 3.48

171 to 180 " 3.53

181 to 190 " 3.58

191 to 200 " 3.63

201 to 210 " 3.68

211 to 220 " 3.73

221 to 230 " 3.78

231 to 240 " 3.83

241 to 250 " 3.88

251 to 260 " 3.93

261 to 270 " 3.98

271 to 280 " 4.03

281 to 290 " 4.08

291 to 300 " 4.13

August, 1929, "Inter-State Prices at "A" Delivery Points

The price of "A" milk of any given butterfat content and bacteria count at any "A" milk delivery point may be ascertained by adding to the base price per 100 lbs. for 3.50% B.F. milk at that delivery point, as given in Table I, butterfat differentials and bacteria bonuses as indicated in Table II.

Table I—Base Prices at "A" Milk Delivery Points

NAME OF DELIVERY POINT	Delivery Point Location in Mileage Zone from Phila.	Minimum Butterfat Test Requirement in Effect at Delivery Point	Base Price of 3.50% Milk per 100 lbs.
Phila. Terminal Market			
47th and Lancaster.....	F.O.B.	4.00	\$3.49
31st and Chestnut.....	F.O.B.	4.00	3.49
Baldwin Dairies.....	F.O.B.	4.00	3.49
Breuninger-Dairies.....	F.O.B.	3.90	3.49
Other Terminal Markets			
Camden, N. J.....	F.O.B.	4.00	3.49
Norristown, Pa.....	F. O. B. less 9 cts.	4.00	3.40
Wilmington, Del.....	F. O. B. less 30 cts.	4.00	3.19
Receiving Stations			
Annapolis, Pa.....	41-50	3.60	2.92
Bedford, Pa.....	261-270	3.80	2.



Clean Milk Requires Clean Surroundings

A dairy barn with walls of concrete masonry and floor of concrete safeguards your investment from every angle. It is permanent and reduces fire danger to the minimum. Its interior is warm in winter, cool in summer. Ventilation can be accurately controlled. A concrete floor is sanitary; easily kept clean; readily disinfected, in emergency; and conserving of feed. All of these factors combine to assure healthy cows, and to raise the standard of milk production, both in volume and quality.

PORTLAND CEMENT ASSOCIATION

A National Organization to improve and extend the use of concrete

Portland Cement Association
1315 Walnut St.
PHILADELPHIA

Please send me your free booklet on Plans for Concrete Farm Buildings.

Name.....
St. Address (or R. F. D.).....
City..... State.....

If You Wish to Keep Posted on Dairy Progress

READ THE
INTER-STATE

Milk Producers Review

If You Wish to Keep Posted on New Equipment Feeds, Cattle Sales, Etc.

READ THE
INTER-STATE

Milk Producers Review

Always mention the name of this paper when answering advertisements

Louisiana Farm Impressions

R. W. BALDERSTON

Southern agriculture, and particularly that of Louisiana, appears in many respects quite strange to the Northern farmer visiting the South for the first time. He knows nothing of cotton farming, rice farming, or sugar farming. He has almost no conception of the fight against the cattle tick and the boll-weevil or to keep the Mississippi, the "Father of Waters" within its bounds.

He is not acquainted with many southern weeds, nor does he recognize many of the trees in the beautiful forests on hill and in swamp. Even at the dinner table many of the dishes are new to him, but nevertheless amid all these strange surroundings there is much connected with the visit to the Institute of Cooperation at Baton Rouge, Louisiana, to make one feel at home. Southern people are very hospitable.

Most of the problems of the southern farmer are in essentials similar, and in many respects identical, with those of the northern farmer. They have all the questions of conservation of soil fertility, the eradication of animal diseases, the continual war against pests, and they have the same problems of marketing as do their northern farm brethren.

Therefore, when the cotton farmer at the Institute began to tell of his troubles and how he had endeavored to meet them through cooperative marketing, the northern dairy cooperator learned much that could be applied to his own problems at home.

While traveling by train across the several states between Pennsylvania and Louisiana, our northern dairy representatives were united in feeling that Louisiana offered perhaps more chances to the dairyman than did some other southern states. Likewise, there seemed to be more dairy farming in Louisiana than in other states. It has been more fully developed. Jersey cows were seen in quite large numbers on many farms. Louisiana has a most equitable climate and 65-70 inches of rainfall. Abundant pastures are available practically the year around.

We were told by the dairy herd manager at the Louisiana State University Farm that with oats for pasture in the three winter months, permanent pastures would take care of roughage needs of the dairy cows, and practically the full needs of growing stock, from February to late in November.

White clover grows naturally and in abundance in the early spring and, throughout the summer, Bermuda grass furnishes abundant pasture for several years without cultivation. Both white clover and Bermuda come again after winter oats without reseeding.

A good practice, therefore, is to start a pasture every few years, grow a crop of winter oats, planting it in the fall and then let nature reseed the pasture with white clover, and Bermuda grass.

Heavy tonnages of soy beans, grain, and sugar cane can be grown for summer feeding when pastures are short; and the silos are filled regularly with a mixture of corn and soy beans.

One of the difficulties of southern dairying is the necessity in most sections of the territory, of fighting the cattle tick. Undoubtedly the hot summers make it somewhat difficult to secure maximum milk yields, but the mild winters well balance this disadvantage.

We saw many farms or plantations on which dairying was conducted as one of the major operations, cash crops being cotton in the highlands and either rice or sugar cane in the lowlands.

The rice is grown on perfectly level fields

which have been irrigated so as to cover them with about 6 inches of water, which is introduced immediately after the planting and not withdrawn until the grain is ripened and ready for harvest.

Sugar cane is planted in the fall, the process being to spread the cane stalks in the row, the new cane growing by means of sprouts at the joints of the old cane. Since the ground is low and often covered with water, cane is grown in ridges of soil about a foot high and five feet apart.

It is the usual practice to grow cane two years from the same planting, following it by a crop of corn and soy beans combined. The latter crops are planted in rows similar to the cane. As far as possible the corn stalks and the entire soy bean plants are left for green manuring, the grain of the corn alone being harvested.

Of course there are some farmers who are anxious to get everything that they can from the land and who, therefore, harvest the bean and grain stalks and do not have them to plow under for manure.

The cotton farmer who is following good present day practices endeavors to get a crop of soy beans into his soil as often as possible for the purpose of enriching it.

Better farmers who specialize in all these lines are more and more appreciating the importance of livestock as a means of maintaining and improving their good soil fertility.

It seems very strange in Louisiana to have to go up on a high bank called a levee to see the great Mississippi River. In Louisiana the river is generally higher than the land alongside.



Louisiana Pasture is good all the year round.

Two large rivers parallel to the Mississippi and being some forty miles away carry off the excess rainfall of the central part of the state.

There is much undrained swamp land which can maintain splendid forests. We were disappointed to see that apparently almost all of the celebrated Louisiana cypress has been cut, nor did we see much evidence of concerted effort to reproduce these forests for the future. At the present time oak and gum seem to be chief timber for the lumbering operations conducted in the wide-spread forest areas.

Probably 95% of all houses in Louisiana are but one story high. A few old plantation mansions have aspired to a story and a half or two stories. All houses are built on piers so as to keep them out of the wet. There is water at all times coming to within a short distance of the surface of the ground.

Beautiful oaks have been planted around the farm or plantation homes, many of them are the famous live oaks which are more wide spreading than are the white oaks of our own country. The trees are draped in Spanish moss, a plant which lives entirely in the air and which grows in great profusion in all the Gulf Coast region. Many farmers as a side occupation harvest this moss in quite

(Continued on page 11)

American Institute of Co-operation

(Continued from page 2)

keting, is there any reason why our universities through their extension departments should not do so? I think there is not.

"One trouble is that these farm advisors do not themselves have the necessary information. We, therefore, must first educate them in co-operative marketing."

Extension Service Wants to Help Co-Ops

The ultimate objects of the co-operatives associations is the same as that of the Extension Service, that is, to increase the net income and improve the living conditions of the farmer, said Dr. C. E. Warburton, Director of extension work, United States Department of Agriculture.

Since the aims of the two great forces are the same, it is inevitable that they should find it easy to work together in harmony and with mutual benefit, the speaker said. While there are some limitations to the assistance that can be rendered co-operatives, the extension service has, in most instances, been a tower of strength to the co-ops during the past 15 years. However, the extension service can and should render even greater assistance in the future.

While a representative of the extension service is not permitted to serve as an officer of a co-operative association, transact business or handle funds for it, or enroll members, the county agent can furnish data relative to the benefits to be derived from co-operation. The agent can advise as to the type of organization best fitted to meet the needs and how it should be managed. In short, the extension representatives are confidential advisors.

Vocational Teachers Are Aiding Co-operatives

The public school system of the United States is fast becoming a medium through which the farmers of the future can be trained in co-operation and where farmers of the present can secure valuable co-operative information, said Robert D. Maltby of the Federal Board of Vocational Education.

"Co-operatives can furnish the agricultural teacher with accurate information relative to the fundamental principles of co-operating dealing with such problems as merchandizing, dumping, pooling, overhead costs, market demands, etc.

The Grange Policy on Co-operation

The unqualified support of the National Grange for the new Federal Farm Board, "in every sound program brought forward for the betterment of agriculture" was pledged today by Louis J. Taber, Columbus, Ohio, National Grange Master, in a paper read for him by Fred Brenkman, Washington representative of the Grange.

The paper stated that the Grange "only seeks the opportunity to be of assistance in building a co-operative marketing program that will bring to the tillers of the soil a more contented and prosperous condition and the full enjoyment of the American standard of living."

National Representation of Co-operatives of Foremost Importance

Urging that a national Council be organized to represent the agricultural co-operatives at Washington, C. O. Moser, president of the American Cotton Growers Exchange and chairman of the American Institute of Co-operation, opened the Institute sessions with a discussion of present problems of the co-operative movement. Mr. Moser declared that the foremost need of the co-operatives was a national clearing house which would deal not only with Congress and various Federal Boards, but would aim to crystallize the thinking of the American people and particularly the American farmers along the line of co-operation. He also

suggested the publication of a co-operative journal as the Official mouth-piece. "Co-operative marketing by farmer owned and controlled business organizations is not definitely a part of our national agricultural policy," said Mr. Moser.

"We are assured of every reasonable governmental co-operation support from the present administration. Its agencies will genuinely encourage and foster agricultural co-operation in America; but we must realize that the Federal Farm Board and the Department of Agriculture can only provide ways and means of assisting the farmers in solving these problems. The initiative, enterprise and final accomplishment of the task must come from the farmers themselves through their co-operative organizations."

Farm Representation at Nation's Capitol is Explained

Agricultural co-operative associations of America must provide a more effective machinery for representation in national affairs, warned Charles W. Holman of Washington, D. C., secretary of the Institute and secretary of the National Co-operative Milk Producers' Federation.

"For years," declared Mr. Holman, "great trade organizations representing business interests antagonistic to agriculture have had competent and effective offices at Washington for the purpose of advising and assisting the government." There are at least 400 representatives of special interest doing work of this kind in the Capitol. Agriculture, on the other hand, has only a handful of representatives.

"The time has come when the co-operatives businesses of this country should have an agency through which they can speak on matters wherein they are unanimous and that agency should be in a position to render special services for its member organizations."

National Co-operative Council is Founded

This new agency was brought into being to promote harmony of action among the farmers' business organizations with regard to national policies and programs, and to keep member organizations informed on matters affecting their common welfare. The Council will operate upon the principle of unanimous consent and will speak for nearly one million farm families doing business of approximately one billion dollars.

The intention is to make the permanent headquarters of the Council at Washington, D. C., to hold an annual educational meeting in connection with the sessions of the American Institute of Co-operation, and to hold an annual meeting for the transaction of business in the determination of programs in the winter of each year at some convenient point. Delegates attending the organization meeting were enthusiastic over the formation of the Council believing that the Council will become one of the most powerful agricultural agencies in the Nation.

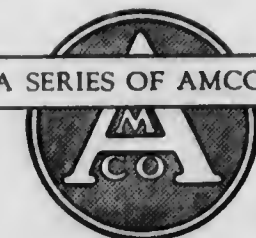
Women Are Half of Any Cooperative

Need for women's participation in the co-operative movement was stressed by Miss Verna Elsinger, Columbus, Ohio, director, Home and Community Service, Ohio Farm Bureau Federation, in the first of a series of talks before the Institute. "Membership support, the foundation on which any co-operative structure rests, must come not alone from the member-farmer but from the member-family," Miss Elsinger said.

"Farming is a mode of living as well as a business. If one half the family supports the co-operative and the other half does not; if one half is co-operative-minded and the other half is not; if one half understands its purposes and the

Continued on page 12

NO. 9 OF A SERIES OF AMCO-FED HERDS



BUTTER FAT- 413.7 lbs.

How does that average compare with yours?



Some of Mr. Snyder's Holsteins. There are five tie calf heifers in this Amco-Fed herd. They were milked twice a day.

A BUTTER FAT average of 413.7 lbs. per cow placed Mr. Clarence Snyder's Holsteins second this year in the White Deer Valley Cow Testing Association (Lycoming County, Pa.) His milk average was 11,404 lbs. and his profit over the cost of purchased feed was \$225.27 per cow.



Martha Johanna Colantha Dutchland 1015264, a 1st calf heifer, made 9646 lbs. milk in a lactation of 208 days.

Do your figures come near these? Mr. Snyder's splendid profit was made possible by Amco 32% Supplement Dairy, which he fed with his own corn and oats. This gave his herd a perfectly balanced ration and the result was a steady production of extra rich milk.

When you have home-grown grains the cheapest way to supply a balanced ration is to add Amco 32% Supplement Dairy, half and half with your grains. If you have straight alfalfa hay, use less Supplement. One bag mixed with two of home-grown grains will give you three bags of 18 per cent dairy feed, and a good economical milk-check.

Your nearest Authorized Amco Agent will be glad to show you the Open Formula tag on a bag of Amco Dairy Supplement. One of the advantages of the Open Formula is that the amounts of ingredients are given, so that you can judge the value of a feed before buying it.

AMERICAN MILLING COMPANY

EXECUTIVE OFFICES: - - - - - PEORIA, ILLINOIS
DIVISION OFFICE: - - - - - MUNCY, PENNSYLVANIA

AMCO
FEED MIXING SERVICE

Plants at: Peoria, Ill.; Omaha, Neb.; Owensboro, Ky.
Alfalfa Plants at: Powell, Garland, and Worland, Wyo.



Clean Milk Requires Clean Surroundings

A dairy barn with walls of concrete masonry and floor of concrete safeguards your investment from every angle. It is permanent and reduces fire danger to the minimum. Its interior is warm in winter, cool in summer. Ventilation can be accurately controlled. A concrete floor is sanitary; easily kept clean; readily disinfected, in emergency; and conserving of feed. All of these factors combine to assure healthy cows, and to raise the standard of milk production, both in volume and quality.

PORTLAND CEMENT ASSOCIATION
A National Organization to improve and extend the uses of concrete

Portland Cement Association
1315 Walnut St.
PHILADELPHIA

Please send me your free booklet on Plans for Concrete Farm Buildings.

Name.....
St. Address (or R. F. D.).....
City.....State.....

If You Wish to Keep Posted on Dairy Progress

READ THE
INTER-STATE

Milk Producers Review

If You Wish to Keep Posted on New Equipment Feeds, Cattle Sales, Etc.

READ THE
INTER-STATE

Milk Producers Review

Always mention the name of this paper when answering advertisements

Louisiana Farm Impressions

R. W. BALDERSTON

Southern agriculture, and particularly that of Louisiana, appears in many respects quite strange to the Northern farmer visiting the South for the first time. He knows nothing of cotton farming, rice farming, or sugar farming. He has almost no conception of the fight against the cattle tick and the boll-weevil or to keep the Mississippi, the "Father of Waters" within its bounds.

He is not acquainted with many southern weeds, nor does he recognize many of the trees in the beautiful forests on hill and in swamp. Even at the dinner table many of the dishes are new to him, but nevertheless amid all these strange surroundings there is much connected with the visit to the Institute of Cooperation at Baton Rouge, Louisiana, to make one feel at home. Southern people are very hospitable.

Most of the problems of the southern farmer are in essentials similar, and in many respects identical, with those of the northern farmer. They have all the questions of conservation of soil fertility, the eradication of animal diseases, the continual war against pests, and they have the same problems of marketing as do their northern farm brethren.

Therefore, when the cotton farmer at the Institute began to tell of his troubles and how he had endeavored to meet them through cooperative marketing, the northern dairy cooperator learned much that could be applied to his own problems at home.

While traveling by train across the several states between Pennsylvania and Louisiana, our northern dairy representatives were united in feeling that Louisiana offered perhaps more chances to the dairyman than did some other southern states. Likewise, there seemed to be more dairy farming in Louisiana than in other states. It has been more fully developed. Jersey cows were seen in quite large numbers on many farms. Louisiana has a most equitable climate and 65-70 inches of rainfall. Abundant pastures are available practically the year around.

We were told by the dairy herd manager at the Louisiana State University Farm that with oats for pasture in the three winter months, permanent pastures would take care of roughage needs of the dairy cows, and practically the full needs of growing stock, from February to late in November.

White clover grows naturally and in abundance in the early spring and, throughout the summer, Bermuda grass furnishes abundant pasture for several years without cultivation. Both white clover and Bermuda come again after winter oats without reseeding.

A good practice, therefore, is to start a pasture every few years, grow a crop of winter oats, planting it in the fall and then let nature reseed the pasture with white clover, and Bermuda grass.

Heavy tonnages of soy beans, grain, and sugar cane can be grown for summer feeding when pastures are short; and the silos are filled regularly with a mixture of corn and soy beans.

One of the difficulties of southern dairying is the necessity in most sections of the territory, of fighting the cattle tick. Undoubtedly the hot summers make it somewhat difficult to secure maximum milk yields, but the mild winters well balance this disadvantage.

We saw many farms or plantations on which dairying was conducted as one of the major operations, cash crops being cotton in the highlands and either rice or sugar cane in the lowlands.

The rice is grown on perfectly level fields

which have been irrigated so as to cover them with about 6 inches of water, which is introduced immediately after the planting and not withdrawn until the grain is ripened and ready for harvest.

Sugar cane is planted in the fall, the process being to spread the cane stalks in the row, the new cane growing by means of sprouts at the joints of the old cane. Since the ground is low and often covered with water, cane is grown in ridges of soil about a foot high and five feet apart.

It is the usual practice to grow cane two years from the same planting, following it by a crop of corn and soy beans combined. The latter crops are planted in rows similar to the cane. As far as possible the corn stalks and the entire soy bean plants are left for green manuring, the grain of the corn alone being harvested.

Of course there are some farmers who are anxious to get everything that they can from the land and who, therefore harvest the bean and grain stalks and do not have them to plow under for manure.

The cotton farmer who is following good present day practices endeavors to get a crop of soy beans into his soil as often as possible for the purpose of enriching it.

Better farmers who specialize in all these lines are more and more appreciating the importance of livestock as a means of maintaining and improving their good soil fertility.

It seems very strange in Louisiana to have to go up on a high bank called a levee to see the great Mississippi River. In Louisiana the river is generally higher than the land alongside.



Louisiana Pasture is good all the year round.

Two large rivers parallel to the Mississippi and being some forty miles away carry off the excess rainfall of the central part of the state.

There is much undrained swamp land which can maintain splendid forests. We were disappointed to see that apparently almost all of the celebrated Louisiana cypress has been cut, nor did we see much evidence of concerted effort to reproduce these forests for the future. At the present time oak and gum seem to be chief timber for the lumbering operations conducted in the wide-spread forest areas.

Probably 95% of all houses in Louisiana are but one story high. A few old plantation mansions have aspired to a story and a half or two stories. All houses are built on piers so as to keep them out of the wet. There is water at all times coming to within a short distance of the surface of the ground.

Beautiful oaks have been planted around the farm or plantation homes, many of them are the famous live oaks which are more wide spreading than are the white oaks of our own country. The trees are draped in Spanish moss, a plant which lives entirely in the air and which grows in great profusion in all the Gulf Coast region. Many farmers as a side occupation harvest this moss in quite

(Continued on page 11)

American Institute of Co-operation

(Continued from page 2)

keting, is there any reason why our universities through their extension departments should not do so? I think there is not.

"One trouble is that these farm advisors do not themselves have the necessary information. We, therefore, must first educate them in co-operative marketing."

Extension Service Wants to Help Co-Ops

The ultimate objects of the co-operatives associations is the same as that of the Extension Service, that is, to increase the net income and improve the living conditions of the farmer, said Dr. C. E. Warburton, Director of extension work, United States Department of Agriculture.

Since the aims of the two great forces are the same, it is inevitable that they should find it easy to work together in harmony and with mutual benefit, the speaker said. While there are some limitations to the assistance that can be rendered co-operatives, the extension service has, in most instances, been a tower of strength to the co-ops during the past 15 years. However, the extension service can and should render even greater assistance in the future.

While a representative of the extension service is not permitted to serve as an officer of a co-operative association, transact business or handle funds for it, or enroll members, the county agent can furnish data relative to the benefits to be derived from co-operation. The agent can advise as to the type of organization best fitted to meet the needs and how it should be managed. In short, the extension representatives are confidential advisors.

Vocational Teachers Are Aiding Co-operatives

The public school system of the United States is fast becoming a medium through which the farmers of the future can be trained in co-operation and where farmers of the present can secure valuable co-operative information, said Robert D. Maltby of the Federal Board of Vocational Education.

"Co-operatives can furnish the agricultural teacher with accurate information relative to the fundamental principles of co-operating dealing with such problems as merchandizing, dumping, pooling, overhead costs, market demands, etc.

The Grange Policy on Co-operation
The unqualified support of the National Grange for the new Federal Farm Board, "in every sound program brought forward for the betterment of agriculture" was pledged today by Louis J. Taber, Columbus, Ohio, National Grange Master, in a paper read for him by Fred Brenkman, Washington representative of the Grange.

The paper stated that the Grange "only seeks the opportunity to be of assistance in building a co-operative marketing program that will bring to the tillers of the soil a more contented and prosperous condition and the full enjoyment of the American standard of living."

National Representation of Co-operatives of Foremost Importance

Urging that a national Council be organized to represent the agricultural co-operatives at Washington, C. O. Moser, president of the American Cotton Growers Exchange and chairman of the American Institute of Co-operation, opened the Institute sessions with a discussion of present problems of the co-operative movement. Mr. Moser declared that the foremost need of the co-operatives was a national clearing house which would deal not only with Congress and various Federal Boards, but would aim to crystallize the thinking of the American people and particularly the American farmers along the line of co-operation. He also

suggested the publication of a co-operative journal as the Official mouth-piece. "Co-operative marketing by farmer owned and controlled business organizations is not definitely a part of our national agricultural policy," said Mr. Moser.

"We are assured of every reasonable governmental co-operation support from the present administration. Its agencies will genuinely encourage and foster agricultural co-operation in America; but we must realize that the Federal Farm Board and the Department of Agriculture can only provide ways and means of assisting the farmers in solving these problems. The initiative, enterprise and final accomplishment of the task must come from the farmers themselves through their co-operative organizations.

Farm Representation at Nation's Capitol is Explained

Agricultural co-operative associations of America must provide a more effective machinery for representation in national affairs warned Charles W. Holman of Washington, D. C., secretary of the Institute and secretary of the National Co-operative Milk Producers' Federation.

"For years," declared Mr. Holman, "great trade organizations representing business interests antagonistic to agriculture have had competent and effective offices at Washington for the purpose of advising and assisting the government. There are at least 400 representatives of special interest doing work of this kind in the Capitol. Agriculture, on the other hand, has only a handful of representatives.

"The time has come when the co-operatives businesses of this country should have an agency through which they can speak on matters wherein they are unanimous and that agency should be in a position to render special services for its member organizations.

National Co-operative Council is Founded

This new agency was brought into being to promote harmony of action among the farmers' business organizations with regard to national policies and programs, and to keep member organizations informed on matters affecting their common welfare. The Council will operate upon the principle of unanimous consent and will speak for nearly one million farm families doing business of approximately one billion dollars.

The intention is to make the permanent headquarters of the Council at Washington, D. C., to hold an annual educational meeting in connection with the sessions of the American Institute of Co-operation, and to hold an annual meeting for the transaction of business in the determination of programs in the winter of each year at some convenient point. Delegates attending the organization meeting were enthusiastic over the formation of the Council believing that the Council will become one of the most powerful agricultural agencies in the Nation.

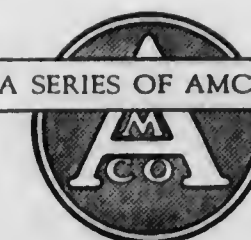
Women Are Half of Any Cooperative

Need for women's participation in the co-operative movement was stressed by Miss Verna Elsinger, Columbus, Ohio, director, Home and Community Service, Ohio Farm Bureau Federation, in the first of a series of talks before the Institute. "Membership support, the foundation on which any co-operative structure rests, must come not alone from the member-farmer but from the member-family," Miss Elsinger said.

"Farming is a mode of living as well as a business. If one half the family supports the co-operative and the other half does not; if one half is co-operative-minded and the other half is not; if one half understands its purposes and the

Continued on page 12

NO. 9 OF A SERIES OF AMCO-FED HERDS



BUTTER FAT- 413.7 lbs.

How does that average compare with yours?



Some of Mr. Snyder's Holsteins. There are five 1st calf heifers in this Amco-Fed herd. They were milked twice a day.

A BUTTER FAT average of 413.7 lbs. per cow placed Mr. Clarence Snyder's Holsteins second this year in the White Deer Valley Cow Testing Association (Lycoming County, Pa.) His milk average was 11,404 lbs. and his profit over the cost of purchased feed was \$225.27 per cow.



Martha Johanna Colantha Dutchland 1015264, a 1st calf heifer, made 9646 lbs. milk in a lactation of 208 days.

Do your figures come near these? Mr. Snyder's splendid profit was made possible by Amco 32% Supplement Dairy, which he fed with his own corn and oats. This gave his herd a perfectly balanced ration and the result was a steady production of extra rich milk.

When you have home-grown grains the cheapest way to supply a balanced ration is to add Amco 32% Supplement Dairy, half and half with your grains. If you have straight alfalfa hay, use less Supplement. One bag mixed with two of home-grown grains will give you three bags of 18 per cent dairy feed, and a good economical milk-check.

Your nearest Authorized Amco Agent will be glad to show you the Open Formula tag on a bag of Amco Dairy Supplement. One of the advantages of the Open Formula is that the amounts of ingredients are given, so that you can judge the value of a feed before buying it.

AMERICAN MILLING COMPANY

EXECUTIVE OFFICES: - - - - - PEORIA, ILLINOIS
DIVISION OFFICE: - - - - - MUNCY, PENNSYLVANIA

AMCO
FEED MIXING SERVICE

Plants at: Peoria, Ill.; Omaha, Neb.; Owensboro, Ky.
Alfalfa Plants at: Powell, Garland, and Worland, Wyo.



School Lunches

The opening of school brings with it the problem of the school lunch. For the old and new pupil alike there is the adjustment from the freedom of vacation to the routine of the school program.

There is a physical strain in this readjustment that is often shown by a loss of appetite. Special care must be taken, therefore, to see that the child gets enough to eat and enough of the right foods.

When the child starts off to school after a good breakfast, careful thought must be given to furnishing him with a suitable lunch. As the days grow colder it is increasingly important that there should be one hot dish provided for him at noon time.

In the larger schools where there are lunch counters or cafeterias the responsibility lies with those in charge to provide suitable menus. In the smaller schools the hot dish is a problem not so easily solved.

In many districts the children take food to school in pint jars, and the jars are heated in hot water before noon.

Miss Ethel P. Jeffers, in the Pennsylvania State College Circular 125, "The School Lunch," gives a full list of combinations suitable for these pint jar lunches.

She recommends that the school lunch should contain:

Milk in some form as a soup, creamed vegetable, cocoa or simply a glass to drink.

Sandwiches—Rye, entire wheat and oatmeal breads are best. Spread with butter. For fillings—Fruits, vegetables, eggs, cheese or fish may be used.

Vegetables—May be used in sandwiches, in soups, or as creamed or buttered vegetables, or in vegetable salads.

Fruits—May be raw, baked, stewed or in puddings or salads. Dried fruits may be used as sandwich fillings.

Sweets—Simple cakes, fruits, puddings or cookies.

The Best-Ever Preserves

No cook can be more proud of any preserves than the mother who has followed the directions for preserving children as advised by the New Mexico Bureau of Public Health.

"Take two or more children of the runabout age. If they are bright eyed, rosy-cheeked youngsters, so much the better.

"Tuck them into bed early—and leave for twelve hours of quiet, restful sleep. Windows wide open.

"In the morning, dress them lightly and set at a table in the brightest, cheeriest corner of the breakfast room.

"To each child add the following: One small cup of orange juice; one steaming dish of delicious nut-brown 'whole-wheat' cereal, several slices of crisp whole-wheat toast, one glass of milk.

"Remove the children to a grassy plot. Add a kite, some toys and mix thoroughly. "Cover all over with a blue sky and leave in the sun until brown."

The big value of this recipe is that it is good all through the summer months and bears fruit far into the winter in the fine vitality and real strength which the summer time preserving method has brought about.

Drink good, rich milk and rise to the top.

A Short Cut to Bright Silver

Most women know that salt and soda, plus an aluminum kettle and hot water, are the best and easiest methods known for cleaning silver. Use one teaspoon salt and one of soda to each quart of hot water. If an enamel kettle is used, place a small aluminum utensil in the bottom, or use an aluminum kettle for the immersion. Each piece of silver must somewhere touch the aluminum. Leave in only a very few minutes, rinse and rub dry. This method is not advised for oxidized silver, as the dark gray deposit will be completely eliminated. It has been found that a tablespoon of soap chips in an aluminum kettle will do the same work that the salt and soda solution does.



An Old Cafeteria Made New

Attractive names for food and the use of bright colors have proved to be a big influence in the sale of foods in the Smedley Junior High School restaurant in Chester, Pennsylvania, according to the Women's Home Companion, in an article reporting the project conducted by the Philadelphia Inter-State Dairy Council.

Before the experiment was started, the pupils spent ten cents out of every dollar of their lunch money for brightly colored sweets, while they now spend but five cents. An even more important discovery is that the pupils are choosing of their own free will the foods that make up a balanced ration.

During the early days of the experiment it was found that when milk was served in amber glasses the sales shot up. A graham cracker supplied with each bottle of milk at no extra cost increased the milk sales eighty per cent over the former average. Lettuce sandwiches done up in green waxed paper went like hot dogs.

Not a single sale was made of cornstarch pudding for a nickel a dish in the familiar white saucers. Between the first and second periods of the same morning the cornstarch puddings were emptied into green glass sherbet cups. During the rest of the lunch hour this change from saucers to the colored glassware could not be made fast enough to keep pace with the sales.

In general, the secret of success in this experiment conducted by the Dairy Council, says the Women's Home Companion, lies in avoiding monotony and in

Give Them the Once Over

With the school days coming, it is wise to have the children start the long grind of daily attendance in the best possible health. If they have had a chance to become healthfully tanned by the sun, if they have been playing out-of-doors, and if they have been eating a quantity of fruits and vegetables, they ought to be in excellent physical condition. Assurance should be made doubly sure by having the children visit the doctor and dentist for an inspection and for taking care of any minor ailments or irregularities in their teeth, so that the school term may not be interrupted by enforced absences after instruction has begun.

Old Standbys in New Form

Escalloped Eggplant

Cook eggplant fifteen minutes in boiling salted water to cover. Drain and peel off skin. Chop pulp, add seasoning, tomatoes, onion and green peppers, cut fine. Turn into buttered baking dish, cover with buttered crumbs and bake until crumbs are dry.

Swiss Chard

Cut leaves from stems, boil in salted water until tender. Serve as spinach.

Cut the stems into two inch pieces and boil in salted water until tender. Serve with white sauce to which has been added two tablespoons grated cheese. They are especially good served with Hollandaise sauce.

Hollandaise Sauce

1/2 cup butter
1 tbsp. lemon juice or vinegar.
Yolks of 2 eggs
1/4 teaspoon salt
Few grains cayenne.

Wash butter, divide in three pieces; put one piece in a sauce pan with vinegar or lemon juice and 1 egg yolk; place sauce pan in a larger one containing boiling water, and stir constantly with a wire whisk. Add second piece of butter, and, as mixture thickens, third piece. Remove from fire and add salt and cayenne. If left over fire a moment too long it will separate. By adding a small quantity of milk the trouble will be corrected. If a richer sauce is desired, add one-half teaspoon hot water and one-half tablespoon heavy cream.

Baked Tomatoes

Wipe, and remove a thin slice from stem end of six smooth, medium sized tomatoes. Take out seeds and pulp, and drain off most of the liquid. Add an equal quantity of bread crumbs, season with salt, pepper and a few drops of onion juice, and refill tomatoes with mixture. Place in a buttered pan, sprinkle with buttered crumbs, and bake twenty minutes in a hot oven. Two tablespoons each, chopped green peppers and onion are an improvement.

Who Is She?

She doesn't like
A shady joke.
She doesn't hike,
She doesn't smoke.

She doesn't swear,
She never flirts.
She doesn't wear
Those shortened skirts.

She doesn't dance,
She doesn't sing;
And, goofy in pants
Don't mean a thing.

She doesn't use
The beauty salves.
But won't refuse
To show her calves.

You ask her name?
Well, that's a wow—
She's not a dame,
She's just a cow!

—THE COWBELL

Oatmeal Porridge Identified With Scotchmen in Sam Johnson's Dictionary

All through the ages, according to historians, porridge has been a main dish, being particularly identified with Scotland where it has always been a staple food.

Dr. Samuel Johnson, who wrote a famous dictionary in the 18th century, defined oats as "a grain which in England is generally given to horses, but in Scotland supports the people. A Scotchman, reading this definition, retorted, "True enough, and where will you find such fine horses as in England, or such fine men as in Scotland?"

Were Dr. Johnson living today he would be much surprised to find oatmeal not only a food for Scotchmen, but one of the most popular breakfast cereals for people of all nationalities.

As you ate your oatmeal, or perhaps it was some other whole grain cereal, for breakfast this morning, did you stop to think of the health you were eating with every spoonful? A cooked cereal is a good milk carrier, a good method of having a warm food for breakfast, and if the cereal chosen is a whole one, an excellent means of adding to the daily supply of iron," states Dr. Lydia J. Roberts of the University of Chicago.

The nutritive value of cereals is mainly in the carbohydrates present, although they contain some protein, a little fat and some mineral matter and vitamins. The coarse cereals contain more minerals and vitamin B. Cooking cereals with milk increases their food value and adds to the flavor.

A well-cooked cereal at least once a day for every child and during the years of rapid growth, one kind for breakfast and another for supper, is advocated by Dr. Hannah McK. Lyons of the Philadelphia Inter-State Dairy Council. Children, especially, need energy-producing foods.

Raisins, dates and figs add to the attractiveness of cereal dishes. For variety, try sliced bananas, prunes, baked apple, berries or peaches. These fruit additions increase the food value and palatability and keep the breakfast menu interesting.

Breakfast dishes are not the only use of cereal products. They may be used in puddings, escalloped vegetable dishes and for stuffing peppers and tomatoes.

Philadelphia Inter-State Dairy Council Incorporated

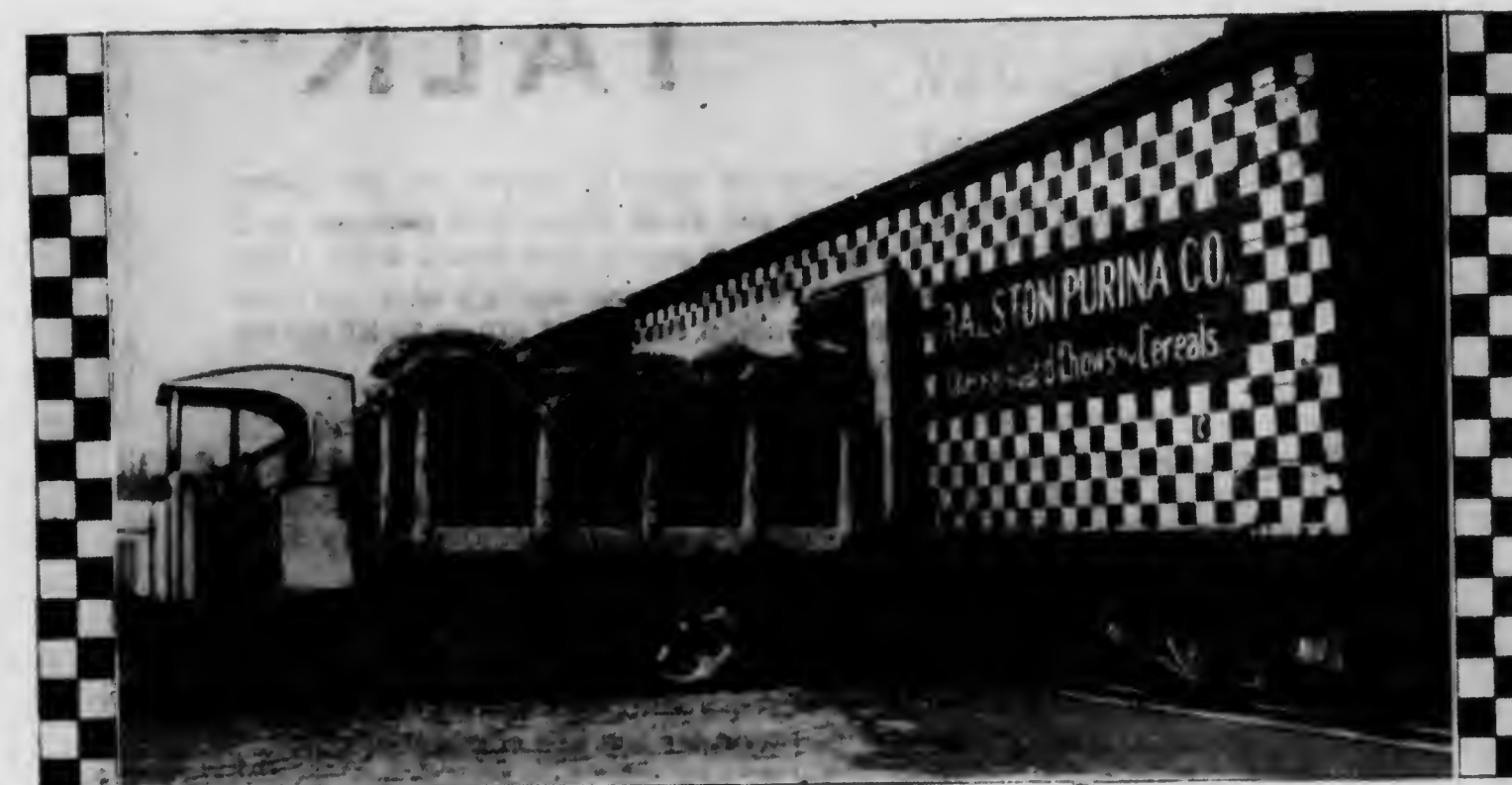
General Offices
Flint Building, Philadelphia
A co-operative movement established for the dissemination of information and publicity pertaining to the production and distribution of dairy products and their food value in nutrition.

Affiliated with the National Dairy Council

Officers
Dr. Clyde L. King, President
H. D. Allebach, Vice President
R. W. Balderston, Executive Secretary
R. J. Harrison, Jr., Treasurer

Departmental Branches
C. L. Cohee, Director Quality Control Department
Lydia M. Broecker, Nutrition Department
Del Rose Macan, Dramatic Department

To Save Money on your Feed Bill



WHEN you have feed delivered to your barn, the dealer is forced to charge you not only for the feed but for the services of handling, storing, and delivering that feed.

There are three ways that you can save money on your Purina feed bill:

1. Haul it yourself right from the car and thus save the dealer expense of handling and delivery.

2. By paying cash for your feed you save the dealer bookkeeping, interest on credit. He can pass this saving on to you.

3. There is still another way to save on Purina. Buy your fall supply now and get a quantity price.

By saving these service charges, the dealer will be able to make you some real savings on your feed bill.

PURINA MILLS
854 Gratiot Street, St. Louis, Mo.

PURINA MILLS

For 36 Years Makers of PURINA CHOWS
POULTRY... COWS... CALVES... HOGS... STEERS... SHEEP... HORSES...

Milk Plant Fraud Brings Heavy Fine

All plants where milk is received from farmers and payments made on the basis of Babcock butterfat tests are being thoroughly investigated by field agents of the Bureau of Foods and Chemistry, Pennsylvania Department of Agriculture, according to a statement by Director, Dr. James W. Kellogg.

Several violations in which many farmers suffered a loss have been unearthed during the past few months and the parties responsible prosecuted. A second violation by one of the largest milk buyers in the southeastern counties has prompted the Bureau to issue another warning to all milk dealers.

The Bureau makes clear that under-reading the test so as to underpay farmers is the most vicious kind of fraud and makes the responsible parties liable to a fine of \$100 to \$1,000 or a 9-month jail sentence.

"All plants paying for milk on the butterfat basis are required to employ competent and licensed testers. Under-reading as well as over-reading tests within slight variations may be due to lack of care and competency on the part of testers but when the majority of tests at one plant are consistently under-read to the extent of from one-third to one percent or more, it is clear that such variations are a plain attempt to defraud producers by submitting reports showing low tests and making payments accordingly.

"The Department's representatives are continuing the thorough check-up, started several months ago, of the activities of all the milk plants and the accuracy of tests made by testers. In all cases where discrepancies are found legal actions will be instituted against the persons responsible, and licenses of incompetent and careless testers will be revoked."



If cows could TALK-

OLD DAISY, pasture expert SPEAKING:

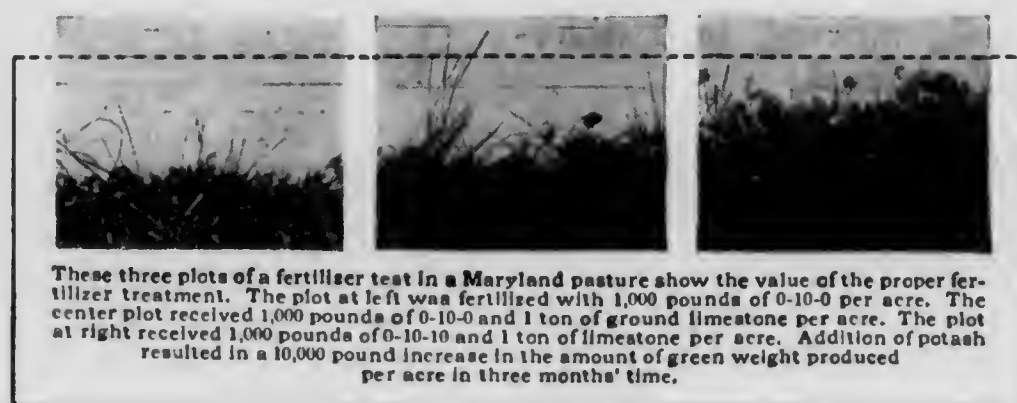
"Grazing sure is better on our farm since the Boss limes our pasture and fertilizes it every four years with 1,000 pounds of 0-10-10 per acre. We save our energy to make milk now that we only have to work a couple of hours to fill up on luscious, succulent, green feed.

"Before our pasture was fertilized we spent all day and half the night searching for a little good grass. We had to be fed in the barn to keep us producing milk. The Boss got tired of most of his milk check going for feeds and decided to try fertilizing an acre of pasture for each cow.

"The lime, phosphorus, and potash brought back clovers and good grasses and crowded out the weeds. This treatment in the Fall and a nitrogen top-dressing in the Spring keeps our pasture in tip-top shape. No wonder we are contented cows."

For free literature on the proper fertilization of pastures communicate with:

Agricultural and Scientific Bureau
N. V. POTASH EXPORT, MY.
of Amsterdam, Holland
19 West 44th Street, New York City



These three plots of a fertilizer test in a Maryland pasture show the value of the proper fertilizer treatment. The plot at left was fertilized with 1,000 pounds of 0-10-10 per acre. The center plot received 1,000 pounds of 0-10-10 and 1 ton of ground limestone per acre. The plot at right received 1,000 pounds of 0-10-10 and 1 ton of limestone per acre. Addition of potash resulted in a 10,000 pound increase in the amount of green weight produced per acre in three months' time.

Penna. New Milk Regulations

(Continued from page 1)

the human hand coming in contact with the inner surface of the bottle or in contact with the caps.

This act, which became a law the second day of May, 1929, is now in effect. Field forces of the State Department of Health are making surveys of conditions at the present time with a view to enforcing the act.

Dairy farmers have much to gain from this law. The provisions which require inspection of the farms will operate to prevent the expansion of the milk shed in brief periods of shortage. The entire act, if properly enforced, will do much toward giving greater confidence in the milk supply on the part of the buying public and will undoubtedly lead to an increased consumption of milk.

Proposed Changes in the Association By-Laws

(Continued from page 1)

by representatives of the Department of Agriculture that in view of the rapid advancement in co-operative thought as exemplified by present-day co-operative legislation, the Association might find it necessary at some future time to modify its form of organization. In order to facilitate such action, an additional clause is suggested for the contract.

Neither the proposed amendment to the by-laws nor the proposed additional clause in the contract will in any way affect the policy of the Association or its method of doing business. The present practices of the Association were thoroughly approved by the government representatives and their suggestion was that these changes be made for the sole purpose of keeping the legal structure in line with our progressive and successful policies.

Selecting the Dairy Bull

In selecting a dairy bull on the basis of the records of his ancestors consideration should be given to the conditions under which the records were made, says the United States Department of Agriculture. An investigation by the Bureau of Dairy Industry at Beltsville, Md., showed that when cows were milked and fed three times a day instead of twice, confined in box stalls instead of in atanchions, fed enough to make them fat instead of keeping them in ordinary flesh, and bred to freshen at intervals of 15 months instead of 12 the production was increased 50 per cent.

A herd improvement association record of 400 pounds of butterfat, if made under ordinary farm conditions, the bureau says, is equal to an advanced registry or register of merit record of 600 pounds.

Sentimental regard for a bull is always misplaced.

Report of the Field and Test Department Inter-State Milk Producers' Association

The following statistics show the average operations of all the Inter-State Milk Producers' Association field men in connection with testing, weighing and general membership work, for the month of July, 1929.

No. Tests Made.....	9587
No. Plants Investigated....	30
No. Membership Calls.....	220
No. Calls on Members.....	240
No. New Members Signed....	55
No. Cows Signed.....	425
No. Transfers Made.....	10
No. Meetings Attended.....	3
No. Attending Meetings.....	184

AUGUST BUTTER PRICES

	92 Score, Solid Pack	Philadelphia	New York	Chicago
1	44 1/2	43 1/2	43 1/2	43 1/2
2	44 1/2	43 1/2	43 1/2	42 1/2
3	44 1/2	43 1/2	43 1/2	42 1/2
4	44 1/2	43 1/2	43 1/2	41 1/2
5	44 1/2	43 1/2	43 1/2	41 1/2
6	44 1/2	43 1/2	43 1/2	41 1/2
7	44 1/2	43 1/2	43 1/2	41 1/2
8	44 1/2	43 1/2	43 1/2	41 1/2
9	44 1/2	43 1/2	43 1/2	41 1/2
10	44 1/2	43 1/2	43 1/2	41 1/2
11	44 1/2	43 1/2	43 1/2	41 1/2
12	44 1/2	43 1/2	43 1/2	41 1/2
13	44 1/2	43 1/2	43 1/2	41 1/2
14	44 1/2	43 1/2	43 1/2	41 1/2
15	44 1/2	43 1/2	43 1/2	41 1/2
16	44 1/2	43 1/2	43 1/2	41 1/2
17	44 1/2	43 1/2	43 1/2	41 1/2
18	44 1/2	43 1/2	43 1/2	41 1/2
19	44 1/2	43 1/2	43 1/2	41 1/2
20	44 1/2	43 1/2	43 1/2	41 1/2
21	44 1/2	43 1/2	43 1/2	41 1/2
22	44 1/2	43 1/2	43 1/2	41 1/2
23	44 1/2	43 1/2	43 1/2	41 1/2
24	44 1/2	43 1/2	43 1/2	41 1/2
25	44 1/2	43 1/2	43 1/2	41 1/2
26	44 1/2	43 1/2	43 1/2	41 1/2
27	44 1/2	43 1/2	43 1/2	41 1/2
28	44 1/2	43 1/2	43 1/2	41 1/2
29	44 1/2	43 1/2	43 1/2	41 1/2
30	44 1/2	43 1/2	43 1/2	41 1/2
31	44 1/2	43 1/2	43 1/2	41 1/2

4-H Dairy Club Boys Hold Dairy Show

Members of the 4-H Clubs of Mercer, Monmouth and Middlesex Counties, New Jersey, held their Sixth Annual Tri-County Junior Cattle Show, in the State Fair Grounds, Trenton, N. J., on August 23rd.

The Show which was sponsored by the Yardville Junior Dairy Club of Mercer County, was quite elaborate. There were 39 Holsteins, 16 Guernseys and 12 Jerseys shown and competition for the various prizes was quite keen.

The Judges were, John R. Danks, of Winterthur Farms, Winterthur, Del.; J. P. Broadhurst, of Locust Grove Farm, Westville, N. J.; R. G. Connelly, of New Brunswick, N. J., and A. S. Barnhart, also of New Brunswick.

National Dairy Show

Details of the various feature programs in connection with the National Dairy Show, to be held in St. Louis, Mo., are rapidly being worked out.

The prize list for cattle in the show is now being distributed. The total prizes for the five leading dairy breeds will aggregate \$30,000. Special ribbons, medals and cups are also to be competed for in addition to the money prizes.

A. C. Ragsdale, will be superintendent of the cattle department.

The St. Louis National Poultry Show to be held in St. Louis, October 14th to 19th, as a division of the National Dairy Show promises an outstanding display.

The 4-H Club program at the National Dairy Show provides an interesting program. It will include dairy cattle judging contests, dairy demonstrations, club cattle exhibits, showing contests, poultry demonstrations and club camp activities.

As Seen in Delaware

ROBERT W. BALDERSTON

The Kiwanis Club of Rehoboth, Delaware, asked me to tell them about the work of the Inter-State Milk Producers' Association, and its services to the farmers of Delaware.

In traveling, particularly through the full length of Delaware, it was of interest to observe the varied types of farming throughout the three counties of this State.

Farm practices in many parts of the Inter-State Milk Producers' Association territory seem quite strange to travelers from other sections within the territory; likewise they have many specialized crops that are grown only in certain limited sections.

quantities of other Delaware fruits and of vegetables in addition to their delicious grapes.

As one goes further south in Delaware, across Kent County into Sussex County, one comes into a section in which the farmers specialize in their crops quite highly. In the territory tributary to the Nassau Receiving Station the farmers have for some years specialized in the production of soy beans for seed. They are now growing a large acreage of peas and bush lima beans for the neighboring canneries. These beans are hauled, vines and all, to the "viner" in the neighborhood, one of which is illustrated below. The peas or lima beans, as the case may be, are, by



Farm of Frank S. Biddle, New Castle, Delaware

The farmer in many of the wheat growing sections of the Eastern Shore of Maryland has always let his wheat stand in the shock until threshing time, but in northern Delaware we see the round stacks illustrated in the accompanying photograph taken along the splendid new duPont Highway near McDonough Station. These are the farm buildings of Mr. Frank B. Biddle, New Castle, R. D., Del., who delivers his milk to a Wilmington buyer. (You will note in the illustration the convenient hand cart which he has run down to the concrete pavement from which the passing truck will take the milk.)

Wheat can be left in these stacks for quite some time until it is convenient for the custom thrasher to come around.

Farmers in this section, in addition to growing large crops of wheat for market, also raise tomatoes and sweet corn for the many canneries throughout this section.

Between Smyrna and Dover are many successful vineyards. This is a small section where the climate seems to be particularly adapted to grape culture, and the farmers have long depended on the few acres of vineyards for a part of their income through sales in New York, Philadelphia and local markets. In these days, roadside stands are a feature along the duPont Highway. At these are sold

means of delicate machinery, shelled from the pods, fanned, and then shipped to the canneries. There are many of the "viners" throughout the territory at convenient points. The peas and beans when shelled can be hauled quite long distances so that there are but few canneries throughout the territory. The returns for such crops



"Vining" house for shelling lima beans and peas

are very good. The average return per acre for lima beans this year is estimated at about \$75.00. Good land will return as much as \$100.00 per acre.

In all these sections it is interesting to note that our farmers are combining the dairy industry with these other specialized activities, so that as members of the Inter-State Milk Producers' Association all are equally interested in the dairy cow.

The Crop Prospects

The Federal-State Crop Reporting Service has issued the following estimates for Pennsylvania as of August the last:

Corn: 5,000,000 bushels more than last year, but 2,560,000 less than the 5-year average.

Wheat: 3,200,000 bushels more than last year, but 1,500,000 less than the 5-year average.

Oats: 3,600,000 bushels less than last year and 6,100,000 less than the 5-year average.

Rye: 500,000 more than last year, 40,000 bushels less than the 5-year average.

Potatoes: 5,000,000 bushels less than last year, 2,000,000 more than the 5-year average.

Tobacco: 2,000,000 pounds more than last year, 700,000 pounds less than the 5-year average.

Hay: 500,000 tons less than last year, 50,000 tons less than the 5-year average.

Apples: 2,250,000 bushels less than last year, 3,600,000 less than the 5-year average.

Peaches: 750,000 bushels less than last year, 400,000 less than the 5-year average.

Louisiana Farm Impressions

(Continued from page 6)

large quantities. After a fermentation process to kill the plant it is hung on wire fences or spread out on the ground to dry and when ready for market it is baled and shipped to the automobile manufacturers who use it for making the comfortable seats of our present day passenger motor cars.

The most important orchard industry in Louisiana seems to be the growing of pecan nuts. The farmstead in the southern part of the state may generally have a few peach, lemon and orange trees around it, but there were no commercial peach orchards seen after leaving Georgia and the commercial growing of oranges and lemons is limited to very small areas in Louisiana.

Since the ground is so moist most of the year the humble mule has not as yet been widely supplanted by the tractor and most of the equipment of the various types of plantations is on the basis of not more than the two-mule team. Labor being cheap there has not been the incentive to increase the efficiency of man power throughout this area. We saw negro women cutting corn for silage at \$1 per day without board. We were told the usual wages for men were about \$1.25 per day. Likewise the 8 hour day has not as yet made its appearance in southern agriculture. All the workers are in the field quite early in the morning, making in many cases 11 hours a day of actual work.

The hot moist climate has a very depressing effect in summer time to the Northern visitor who finds it difficult to put as much energy into things as those whom he sees all around him and who are acclimated. It was a question in the minds of many of those visiting the South in the summer for the first time whether it was a good proposition for Northerners to pick up stakes and move to the far South without seriously considering whether or not they would be able for some time to come to have their usual strength, energy and vigor under conditions so entirely different from those to which they were accustomed at home.

After all, though we enjoyed visiting new scenes and the hospitality of the kindly folk whom we visited, perhaps the best thing for the majority of us to do is to be content in that environment in which we have been brought up and to which we have become accustomed. As one of the party said on the way home, "I always enjoy traveling, but I come home thoroughly satisfied with my own home surroundings."

New Milking System On Federal Dairy Farms

(Continued from page 3)

in the same tank. It is possible, he says, to go a step farther and bottle the milk under vacuum, using the principles now commonly employed in canning fruits and vegetables. Milk thus handled would make the entire journey from cow to consumer without contact with the air until opened for use.

Tests of the bacterial content produced under this new system, made by the division of market milk investigations, have shown some remarkably low counts. Over a five months' period, the average bacterial content, as taken from the glass containers, was 3,460 per cubic centimeter, and from the vacuum tank 3,780 per cubic centimeter. On four days of this period the milk was pasteurized in the vacuum tank at 145 degrees for 30 minutes; the average bacterial count of the raw milk in the tank before pasteurization was 3,590 and after pasteurization and cooling it was 55 per cubic centimeter, indicating a very high efficiency for pasteurization under this system.

Eastern States Farmers' Exchange

Feed for Fall

The farmer who is making the most of his dairy enterprise keeps looking ahead. He plants his grass and grain this fall knowing that this fall's planting will produce results only after a long winter. He breeds with a view to increasing his production and reducing his cost of production not this fall but two years from this fall. And he buys feed to supplement his home-grown grain and roughage both to make this fall's milk and to keep his herd in trim to produce economically season after season for many years.

The complete co-operative feed purchasing program conducted by a large group of these farmers through their Eastern States Farmers' Exchange is based upon this sound method of feeding. Eastern States feeds are blends of ingredients calculated to so supplement home-grown supplies as to keep cows producing milk and producing calves profitably for their owners.

Low cost per unit of production is the aim of Eastern States feeds. It is in the regions where herd improvement records have been kept most consistently on the use of Eastern States feeds that these ratios are most consistently fed. Dairymen in these associations have six years of accurate figures to show that Eastern States feeds make milk economically from day to day, and splendid herds of cattle to show that Eastern States feeds grow young stock well and keep the milkers in good shape over a period of years.

Where Records Are Kept Eastern States Feeds Prove Their Worth

These are the feeds you should use the year round to get the most out of your cows in the fall. They include a quality ration for the varying needs of the dairymen and breeders who are insisting upon successful feeding programs.

No farmer is too small and none too large to benefit from Eastern States service. If you are also thinking of trying the service which thousands are endorsing with their patronage, write the office for information.

Eastern States Farmers' Exchange

A non-stock, non-profit organization, owned and controlled by the farmers it serves

HEADQUARTERS:
SPRINGFIELD, MASSACHUSETTS

DAIRY COUNCIL SERVICE

The various departments of the Dairy Council are at your service and will assist you in planning

Educational Entertainment

For your Community, Local or Club Meeting.

The Dairy Council has carried the message of "Milk for Health" to hundreds of thousands of producers and consumers in the Philadelphia Milk Shed.

Lectures and Speakers on Health Programs

ARE AVAILABLE

Motion Picture Films on Dairy Subjects Lantern Slides Literature Posters

Short Plays for the Children, etc.

ARE YOURS FOR THE ASKING

Write us for detailed information and programs

Let us assist in Planning
Your Entertainment

Philadelphia Inter-State Dairy Council

R. W. BALDERSTON, Secretary

FLINT BUILDING

219 North Broad Street Philadelphia, Pa.

EVERYTHING FOR THE DAIRY

AT

MARTIN C. RIBSAM & SONS CO.

143-5-7 East Front St., TRENTON, N. J.

Cattle Stanchions, Water Cups, Carriers installed if desired. Estimates given. Manure Spreaders, Fodder Cutters & Hammers. Feed Mixing Machines, \$35.00 to \$37.50; very handy machine to have.

De Laval Separator, Sanitary Milking Pails, Cans, etc. Farm Supplies in General; also Farm and Garden Seeds.

American Institute of Co-operation

(Continued from page 7)

other half does not, the organization is doomed to failure."

The good co-operator was defined as one who knows, and acts. He votes, he attends meetings, he expresses his ideas, he takes part in membership campaigns or production campaigns, or whatever may be needed to carry out the purposes and promote the welfare of his organization. A sense of fellowship with other members and a perspective enabling him to view the co-operative venture as a great cause were named as other qualifications necessary to the good co-operator.

"Not co-operative marketing but co-operative living is our goal," Miss Elsainger declared. "We seek those things for rural life which will contribute to a full, well-rounded, richly-satisfying existence for every man, woman, and child in the country. We would transmit to the youth of today and tomorrow a love of farming, a sense of its dignity, an appreciation of its beauty. This demands that farming shall be made profitable and farm life satisfying. Toward the attainment of that goal our collective efforts are enlisted in co-operative organization."

New England Co-Op Purchasing Explained

The function of a co-operative purchasing service, such as is provided by the Eastern States Farmers' Exchange, is to employ knowledge and research in the selection and purchase of raw material for use in the production of farm crops, said John D. Zink, Springfield, Mass.

Mr. Zink told how his organization is purchasing various commodities of the very best quality for its members.

Co-operative Insurance is Discussed Through co-operative insurance companies, many of the hazards of the farmer are being eliminated, stated Murray D. Lincoln, general manager of the Ohio Farm Bureau corporation.

New Dairy Problems Rise From National Mergers

A warning that milk producers serving urban markets should take immediate steps to meet changed conditions in the milk industry, was uttered by Harry Hartke, of Covington, Kentucky, president of the National Co-operative Milk Producers' Federation.

"Never before has the public had such a great interest and confidence in the future of the dairy industry," he said. "The banks are lending it millions of dollars and we see the stocks of the large private companies advancing by leaps and bounds. We hear of manufacturers and distributors disposing of their businesses to these combines."

Managers Should Have Personal Contact With Members

Personal contact is absolutely essential for the success of any co-operative association and the management must keep this in mind, said Sam L. Morley, general manager of the Oklahoma Cotton Growers Association.

"Unless the management is farmer-minded and can see things as the farmer sees them, success will be hard to achieve," Mr. Morley said. "There is something more to co-operative marketing than the saving in dollars and cents. The farmer wants to meet the manager of his association face to face; to discuss his problems and the manager must be in position to show that farmer that his association is not only rendering a service, but is intensely interested in each farmer individually and collectively. Co-operative marketing must become a part of you, must be a religion, and you must be evangelists preaching the gospel of co-operation."

"Know Your Markets and Your Competition"

"Know your markets and know the competition which your commodity must face," was the advice given to co-operative leaders by Nils A. Olsen, Washington, D. C., chief of the Bureau of Agricultural Economics. "Co-operative associations can provide effective machinery through which products may flow to market, but their success in no small measure will hinge upon the intelligence and wisdom with which they move those products to the markets of the world."

Asks Through Organization of Dairyman

Appealing to the leaders of the dairy producers in the south, D. M. Geyer, Chicago, Manager and secretary of the Pure Milk Association, urged them to organize at once and to keep the organizations growing with the industry.

That the organizations must be an asset to the industry rather than a parasite with price as the only object was emphatically stated by Mr. Geyer. Dealers must be treated alike without fear or favor and some measure of control must be exercised over dealer market activities. No price cutting or other unfair practices should be tolerated.

"With modern transportation the United States is comparatively small," said Mr. Geyer. "No organization of producers is safe unless its position is consolidated through a close hookup with other organizations. This is available through the National Cooperative Milk Producers' Federation. This great organization representing some 300,000 dairymen can offer advice, counsel and assistance to any milk bargaining group."

"It is my opinion that as time goes on we must build closer relationship between dairy organizations and a national merger of cooperatives dealing in milk may be necessary."

"Organizations are built by hard work and mostly upon the sacrifices of a few earnest men. Those men who assist in building a successful organization that will advance the cause of the American dairy farmer have built a monument worth while."

Building The Temple of Cooperation

The official close of the Institute sessions was marked with a plea from Miss Vera Elsainger, Home and Community Director of the Ohio Farm Bureau, for equality in agriculture, laying emphasis on the fact that until there is a fairer and more equitable adjustment, better homes, better living conditions, cannot be attained by the farmers.

"The very fact that such a large crowd attended the Institute shows that all are becoming cooperative minded," she said. "When men and women from every state in the union discuss their common problems, much can be accomplished."

"Agriculture has too long borne too large a share of the economic burden of the country. Thirty percent of our population is engaged in farming, yet they represent only seven and a half percent of the national income. There has been an increase in farm mortgages and a decrease in value of farm properties, with taxes, freight rates, etc., remaining at too high a level."

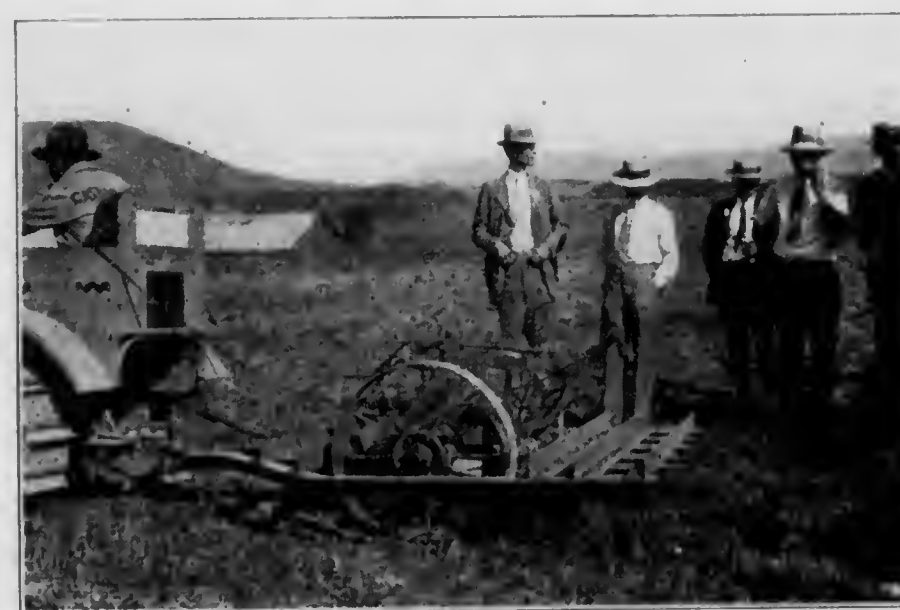
"Until the farmer receives more for his labors, there can be no outstanding improvement in agricultural matters."

"The farm men and women of our country are building a magnificent temple—a temple of co-operation—and just as far as they can sense the magnitude of this endeavor, just so will they be helped individually."

Potato Field Day at Pennsylvania State College

August 20th, 21st and 22nd, were big days to the potato growers of Pennsylvania when they assembled at the Pennsylvania State College for the first Potato Field Day, that is expected will be an annual event.

Six-hundred bushel men, five-hundred bushel men, four-hundred-bushel men, mingled freely with growers not renowned for such huge production but striving to learn the secret of large production per acre. Potato machinery of every description was displayed and demonstrated.



CHISEL HARROW FOR DEEP TILLAGE
Harrowing 14 inches deep in hard ground

Big tractors, little tractors, as well as all shapes and assortments were seen in use. Sprayers and dusters of all descriptions did their part in making the atmosphere, already heavily laden with dust, almost unbearable. Gang plows, two-way plows, pulverizing plows and deep tillage machinery rooted up the dry ground with varying success. Horse-drawn diggers, power diggers, and even a few men to scratch them out, were harvesting the crop. Grading machinery demonstrated the methods of grading and the meetings discussed effective means of packing and selling the crop.



Even the lowly mule came in for a good share of attention

Miniature storage houses were demonstrated and informed the potato growers as to how they might be properly stored. Farmers from every county in the state apparently were there in force.

One striking thing was apparent and that was that good potato growers in many cases are also good dairymen. There was a liberal sprinkling of dairymen throughout the entire group. Some of them could not attend the entire three days because of the necessity of hurrying home to milk the cows.

Directors' Meeting

The regular bi-monthly meeting of the Board of Directors of the Inter-State Milk Producers' Association, will be held in its offices in Philadelphia, on September 25th and 26th, at which routine and general business of the association will be considered.

Butter Industry Fast Disappearing from Pennsylvania

The making of butter in Pennsylvania is slowly but surely becoming an industry of the past, according to the State Department of Agriculture

Almost 80,000,000 pounds of butter were made on Pennsylvania farms as late as 1880; in 1928 it is believed that less than 26,000,000 pounds were made on farms and in creameries. The amount made on farms decreased from 24,303,300 pounds in 1927, to 22,806,700 pounds in 1928, and the quantity made in two of the

largest co-operative creameries in the Commonwealth decreased during the same period from 570,000 pounds to 485,000 pounds.

A study made by the Bureau of Markets shows that in co-operative creameries a greater production of cream was sold as liquid cream and less was made into butter in 1928 than in any other year since these creameries have been in existence. At the same time, milk sales of non-stock co-operative distributing plants in 1928 increased five per cent over 1927, due to an increase in the volume of milk handled.

The growth of population in eastern cities and the greater per capita consumption of milk and milk products have greatly expanded the market for whole milk and cream. This has resulted in more and more of the milk produced in Pennsylvania going into the whole milk and cream market and a constantly decreasing amount being made into butter. Already this change has lifted from the shoulders of Pennsylvania farm women the tedious burden of making almost 60,000,000 pounds of butter.

Radios on Penna. Farms

Figures recently compiled by the Bureau of Statistics, Pennsylvania Department of Agriculture, show that one farmer in every five in the State have radios, the total number in use in Pennsylvania on January 1st, 1929, being 42,050. This represents an increase of 6,590 during the past year.

The growth of the popularity of the radio has been general throughout the Commonwealth, each county showing a substantial gain during the past five years.

Counties having the largest numbers of farmers using radios include: Bucks, 1,880; Chester, 1,850; Washington, 1,610; Berks, 1,550; Westmoreland, 1,540; Lancaster, 1,400; Montgomery, 1,360; York, 1,240; Cumberland, 1,230; Erie, 1,200; Allegheny, 1,100; Bradford, 1,100; Butler, 1,070 and Mercer, 1,000.

For next year's clover to be seeded in wheat on sour soils, apply lime soon after the land is plowed.

Next time you buy Larro, it will come to you in the attractive red and blue bull's eye design shown above.

Larro hasn't changed a bit. It's the same reliable feed that maintains dairy health and leaves you the most profit over the feed cost but the new design makes a better looking bag—and it conforms with the design on Larro Poultry Feed bags.

The quality of Larro Feeds will never be lowered so long as Larro is made. No matter what changes take place in the price of ingredients, Larro Feeds will always remain the same high quality.

THE LARROE MILLING COMPANY, DETROIT, MICHIGAN

Larro

FEEDS THAT DO NOT VARY
for
DAIRY, POULTRY AND HOGS

Public Shows Greater Interest in Farming

An increase of public interest in agriculture and in activities relating to the industry during recent years is indicated by records being kept by the Pennsylvania Department of Agriculture.

Clippings of published articles, based upon material distributed by the department for publication, show that this information reached on the average monthly in 1925, 6,300,000 readers of newspapers and farm papers published in Pennsylvania; in 1926, 6,800,000; in 1927, 9,900,000; and in 1928, 10,500,000—an increase over 1925 of 4,200,000. The figures for 1929 are showing an increase over 1928.

Many of the smaller newspapers are not received by the State clipping service so that the actual number of people who have an opportunity to read information released by the department is even greater.

Real Compensation Insurance

Our policies furnish compensation protection as required by the Compensation Act and in case of accident pays benefits according to the Act.

We protect the employer. 24 hours in the day, regardless of when or where an accident might occur.

We paid a dividend for 1928 of 18%.

This Company made a gain of 30% in its premium writings for 1928.

This Company was organized by the sawmillmen, threshermen and farmers and is controlled by these interests.

Pennsylvania Threshermen & Farmers' Mutual Casualty Insurance Company

311 Mechanics Trust Building, Harrisburg, Pa.

WRITE for detailed information, as to costs, etc.

I am interested in having Casualty Insurance for my help and protection for myself, 24 hours in the day. I estimate my payroll

for the year at

Occupation

Name

Address



McCORMICK-DEERING Enclosed Gear ENSILAGE CUTTER

THE McCormick-Deering No. 12 Ensilage Cutter is another International Harvester achievement. It sets a new standard in ensilage-cutter design and construction. Here is an ensilage cutter that embodies improved features taken from automobile and tractor construction.

The foundation of the No. 12 ensilage cutter is a one-piece main frame enclosing the flywheel, cutter, transmission and apron drive. All the working parts are enclosed in an oil-tight and dust-proof housing, permitting all parts to run in a bath of oil. This construction, combined with the use of specially cut and heat-treated gears, assures exceptionally long life and efficient operation.

OTHER FEATURES OF McCORMICK-DEERING CONSTRUCTION ARE:

Knife-on-flywheel type with four knives secured to flywheel of boiler plate steel.

Positive drive on feed apron with high and wide feed throat. Working parts mounted on high grade, anti-friction bearings. Length of cut can be changed without stopping machine.

COME IN AND SEE THIS MACHINE

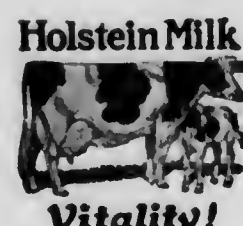
The International Harvester Company

Philadelphia

Baltimore

Harrisburg

"Holsteins of the Better Sort"



Vitality!

Registered, Blood Tested for Abortion, and from Fully Accredited herds. Some are imported and bred to the World's most famous bulls. Some are bred to our Prince Aaggie Aralia Mead, the full brother of Prince Aaggie of Berylwood, the famous \$110,000 Sire. Some have high production records. Few priced as low as \$250. WM. H. LANDIS, Bell Phone Pennsylvania 96 R21, East Greenville, Pa.

HOLSTEINS FOR PROFIT

More Dollars per Cow per Year

Greater Size Holsteins are the largest dairy cattle and bring more for beef. They produce the most milk and butterfat. Veal calves often return 10% on the investment in the cow.

Extension Service

The HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA
230 East Ohio Street, Chicago, Illinois

New Jersey as a Dairying State

New Jersey's \$15,000,000 dairy industry is situated in five distinct areas, it is revealed in a recent economical and statistical survey of the state's dairy industry by the New Jersey Department of Agriculture. This localization is due not only to the type of land needed for dairy farming, but also because of the tremendous outside competition which necessitates farms near the centres of consumption.

Sussex County is the leading dairy county with a cattle population of 25,000 and an average production per cow of 6,000 pounds. Warren County has more than 10,000 dairy cows with excellent pasturage. Hunterdon County has a cattle population of 15,000, Mercer 6,000 and Morris about 6,000. These counties are known as the North Jersey area.

The second important dairy section is known as the "Cream Ridge Area." This is in the western part of Monmouth County. Dairying has long been the chief industry. The milk produced is mostly for sale at shore points.

The third section comprises the northern half of Burlington County. Most of the dairymen are members of the Interstate Milk Producers' Association and sell their products as whole milk in Philadelphia.

In the southern part of the state there are two important dairy areas known as the "Salem Area" and the "Shiloh Area." Practically all the herds are Holsteins, and many of the cattle are purebreds. The milk is largely disposed of in Philadelphia, although the Shiloh producers sell part of their supply at a condensory at Bridgeton.

Aside from fluid milk, New Jersey produces about 9,000,000 pounds of manufactured products annually, according to a dairy study by the State Department of Agriculture. Miscellaneous forms of condensed and evaporated milk make up 55 per cent of these products, with cheese and ice cream consuming the remainder of the milk and cream available for manufacture. New Jersey produces 25,620,000 gallons of fluid milk each year.

Data from 159 dairy farms in the five sections of New Jersey, showing the general farm business setup, and certain factors affecting the profits, can be secured by writing to the Department of Agriculture, Trenton, for Circular 162, entitled "The Dairy Industry in New Jersey."

Two coats of good oil paint over a smooth plaster make a satisfactory finish for kitchen walls.

Maryland State Dairymen's Association Holds Annual Meeting

The Twelfth Annual Meeting of the Maryland State Dairymen's Association Inc., was held at the Alcazar in Baltimore, Md., on August 31st.

Upwards of 500 dairymen attended the sessions, which was presided over by R. Smith Snader, President of the Association.

Routine reports of the years' business were made by President Snader, and by I. W. Heaps, Secretary, a statement of the Associations' financial condition prepared by Daniel L. Clayland, 3rd, Certified Public Accountant was also presented by the secretary and a report of the years' work of that organization by W. Horace Harper, secretary of the Baltimore Dairy Council.

Don R. Geyer, manager of the Pure Milk Association, Chicago, Illinois, made an address on the "Result of Cooperative Milk Marketing in that Section," while Clyde L. King, Wharton School, University of Pennsylvania, made a brief address on "How Can the New Farm Legislation Benefit Cooperative Milk Marketing?"

At the business session that followed, routine business was transacted. The Association adopted an amendment to its By-Laws making the month of January each year as the time for holding its annual business session. This amendment also authorized the holding of a summer picnic at a date to be selected by the Board of Directors.

A formal election of directors for a term of three years resulted in the election of those now on the present board. They include, I. W. Heaps, Harford County; Dr. R. W. Sherminette, Baltimore County; Robert Gist, Carroll County, and David G. Zentz, Frederick County.

The annual banquet of the association was held at the Alcazar, Fred C. Jones served as toastmaster. Addresses were made by the Hon. Albert C. Ritchie, Governor of the state of Maryland; Mayor Broening, of the city of Baltimore; Dr. C. Hampson Jones, Commissioner of Health; Dr. A. F. Woods, University of Maryland and by Hon. Harold B. Wells, of New Jersey.

Evaporated milk production was 1,584,601,000 pounds in 1928, a somewhat larger quantity than in 1927. The production of condensed milk showed a slight decrease from 1927 being reported as 333,826,000 pounds for 1928.

Reduce bacteria count

To reduce bacteria count and to keep it low, use Oakite cleaning materials and methods in your cow barn.

Oakite safely removes dirt from flanks and udders of cows; quickly cleans stanchions, floors and walls. Keeps pails, milkers and all other equipment free from every trace of the film and dirt which encourages bacterial growth. Moreover, Oakite materials are non-injurious; cannot harm skin, clothing, wood, metal or rubber surfaces.

You can obtain details on Oakite cleaning for your dairy farm from the Oakite Service Men near you. A postal to us will bring him to you.

Oakite Service Men, Cleaning specialists are located in the leading industrial centers of U. S. and Canada.

Manufactured only by

OAKITE PRODUCTS, INC.

34 F Thames St., NEW YORK, N. Y.

OAKITE
Industrial Cleaning Materials and Methods

High Grade Dairy Cows

in
HIGHTSTOWN, N. J.

We handle all kinds of cattle

Holsteins—Guernseys—Jerseys
A Specialty

All cows tuberculin tested and sold subject to a 60 or 90 day retest and fully guaranteed in every respect.

Free delivery any distance.

B. ZAITZ & SON

202 Mercer Street

Phone 72 Hightstown, N. J.



Let Us Design Your
Stationery

Horace F. Temple
Printer

Bell Phone No. 1
WEST CHESTER, PA.

Quietness and Convenience in
Philadelphia's Newest Hotel

The Robert Morris

17th and ARCH STREETS

Rooms all outside and with

bath. All beds equipped

with box springs and Nach-

man inner hair spring mat-

tresses.

RADIO IN EVERY ROOM

Single rooms... \$3.00 \$3.50 \$4.00

Double rooms... 4.50 5.00 6.00

LUNCHEON .60 and .75

DINNER \$1.00, \$1.15, \$1.50

ALFALFA—CLOVER HAY FOR SALE—Best Grades.

Attractive prices. Save you money. Write today. John Devlin Hay Co., 192 N. Clark Street, Chicago, Illinois.

1,193,660 Cattle Tuberculin Tested in Month— New High Record

During the month of May, 1929, more tuberculin tests were applied to cattle in connection with the cooperative tuberculosis-eradication work than in any previous month, according to a summary of the work just issued by the Bureau of Animal Industry, United States Department of Agriculture.

Slightly more than a million tuberculin tests have been applied during a month eight times since the work began in 1917, but at no time was the number so great as during May of the present year, when 94,517 herds, containing 1,193,660 cattle were tuberculin tested.

The official summary shows also that 719 counties are designated as modified accredited areas, indicating practical freedom from bovine tuberculosis. In addition, 30 towns in the State of Vermont are so designated. The largest number of cattle tested during May was in Wisconsin, but almost as many received the tuberculin test in Minnesota, the numbers being 150,394 and 147,119, respectively. New York and Iowa also each had more than 100,000 cattle tested. The large volume of testing promises to continue, since more than 2 million cattle are at present on the waiting list to be tested.

Report of the Quality Control Department Philadelphia Inter- State Dairy Council

The following is a report of the work done by the Quality Control Department of the Dairy Council for the month of July, 1929.

No. Inspections Made... 3,107

Sediment Tests... 1,878

No. Permanent Permits

Issued... 181

No. Temporary Permits

Issued... 95

No. Meetings Held... 0

Attendance... 0

Reels Movies Shown... 0

No. Man Days—

Fairs and Exhibits... 0

Bacteria Tests Made

(Plants)... 46

No. Miles Traveled... 23,863

During the month 34 dairies were discontinued from selling for failure to comply with the regulations—9 dairies were reinstated before the month was up.

To date 140,091 farm inspections have been made.

Big Business By Dairy Co-operatives

Nearly 42 per cent of the \$640,000,000 received in 1928 by farmers' associations concerned with the marketing of dairy products, came from the sale of fluid milk. About 41 per cent of the total amount came from the sale of butter, and nearly 5 per cent from the sale of cheese. Cream sales account for more than 7 per cent of the total.

Returns from the sale of milk powder, ice cream and skim milk, each amounted to less than one per cent, as did also the sale of farm supplies to the members of the 2,500 active dairy marketing associations.

The approximate figures representing sales for the different dairy products handled by the cooperative associations in 1928 are as follows: fluid milk, \$269,000,000; butter, \$262,000,000; cream, \$46,000,000; cheese, \$30,000,000; milk powder, \$5,000,000; ice cream, \$4,000,000; skim milk, \$2,000,000.

FOR SALE: HOLSTEIN BULLS

Ormsby—Spring Brook Bess Burke 2nd breeding. New sale list just out Sept. 1st. Prices reasonable.

WINTERTHUR FARMS, Winterthur, Del.

TRADE MARK **NICE** REG. U.S.A.

THE NAME TO GO BY—WHEN YOU GO TO BUY
PAINT AND VARNISHES

Write for Color Cards and Booklet "Paint Printers"
EUGENE E. NICE COMPANY, Inc., PHILADELPHIA

COLDBLOC

Electric Refrigerated Milk Cooling Equipment

EFFICIENCY, ECONOMY, RELIABILITY, SIMPLICITY
DOMESTIC UTILITIES, 2117 N. Charles St., BALTIMORE, MD.

THROUGH ITS Dairy Cattle SHOW

THE
TRENTON New FAIR
Jersey

Has become the show-place of the East for pure bred stock. Both exhibitors and buyers profit through this easily accessible market and each year brings an increase in the number of sales made directly on the grounds.

This year's exposition will be held during the week of

Sept. 30--Oct. 5

Live Stock entries close September 17

Write at once for catalogue

J. FRED MARGERUM
General Manager



100 Real Dairy Cows 100

For sale at all times. Tuberculin tested Holsteins, Guernseys and Jerseys. Real Milk Producers. Carload lots a specialty. Priced to sell. See or Write.

JACOB ZLOTKIN
Phone 330 FREEHOLD, N. J.



"H-K" Milking Machine

Light—Portable—Easy to Clean
IMPROVED TEAT CUPS

A Real Helper on the Farm
BUCKWALTER SUPPLY CO.

40 S. Queen St. Lancaster, Pa.

High Grade Guernsey and Holstein Dairy Cows

Car load lots a specialty

JOHN S. MATHIS, New Augusta, Ind.

Dairy and Poultry Feeds

That Produce Results
Farm Supplies of all kinds
Ask Us for Prices

Scheideler Bros.

LAWRENCE STA., N. J.
Phone Plainsboro 593



\$1900 to \$2700

A YEAR

Men-Boys 18 Up

Mail Coupon Today, Sure

Name

Address

Address

Now TRY The New De Laval Magnetic Milker ~Without Obligation



NO MILKER has ever been received with anywhere near as much popular interest and approval as the new De Laval "Magnetic" Milker. From the very first announcement the new "Magnetic" has been the subject of articles in leading farm papers and newspapers the country over, all of which commend and draw attention to the progressive step which has put magnetic force to work milking cows with the utmost uniformity and regularity. Already there are thousands of these milkers in use giving remarkable satisfaction, and their best endorsement comes from users who have had other milkers.

But printed matter and the spoken word can at best give you but the barest idea of the splendid milking performance of this new milker which has established new high standards of milking. The best way to know and appreciate the milking ability of the new De Laval "Magnetic" Milker is to operate it yourself on your own cows in your own barn. Milker is to operate it yourself on your own cows in your own barn. Then you will know why it is called the world's best milker!

You can do this without obligating yourself in any way. Simply write the nearest office below and tell them you want to try a De Laval Milker. For perfect, uniform and dependable milking, ease of handling, sanitation, economy and time and labor saving, you will find it has no equal. Arrange for this free trial in your own barn today.



Send Coupon for

Free Trial of a

De Laval Milker.

In Your Own Barn

**—and the New
De Laval "Utility"
Milker Units Will
Operate on Your
Old Single Pipe
Line.**

THE DE LAVAL SEPARATOR COMPANY, Dept. 9846
New York, N. Y., 165 Broadway
Chicago, Ill., 600 Jackson Blvd.
San Francisco, Calif., 61 Beale St.

Gentlemen: I would like to try the De Laval "Magnetic" Milker or De Laval "Utility" Milker (check which) in my own barn, without putting myself under any obligations whatsoever and at no cost to myself.

My name is.....

Address.....

No. of cows..... ☐ Check here if you wish literature only.

Milk Producers

ISSUED MONTHLY IN THE INTEREST OF THE DAIRY FARMER BY THE INTER-STATE MILK PRODUCERS' ASSOCIATION

Vol. X

West Chester, Pa., and Philadelphia, Pa., Oct

No. 6

All Basic Milk This Fall Producers Can Make New Basic

Following the conferences with buyers terminating on August 28th, as outlined in the last issue of the REVIEW, it was found that throughout the territory there was a considerable amount of opinion among milk producers that each farmer should be allowed to make a new basic quantity this fall without regard to average production of other years. It was found that during the past year at least 1500 basic quantities had been adjusted on request of the farmers. Many milk producers had not been able to get their herd production stabilized after passing through the tuberculin test. Likewise, there were in the territory a number of new producers, mostly young farmers, who were objecting to have to wait three years to get their farms on the production level which they felt would be in line with their capacity.

It was found, further, that some buyers were making wide spread adjustments in certain territories to meet the request of such producers. The market situation for the time being seemed to warrant a further discussion of this matter, and a conference of the buyers was called on Monday, September 23rd. The whole subject was thoroughly discussed and after a considerable amount of argument on both sides it was agreed first, that the buyers should pay basic price for all milk purchased during October, November and December of this year, and second, that the basic quantity for each producer during 1930, would be the higher of either, (1) the average production during October, November and December 1929, or (2) the basic quantity established on the so-called three year plan outlined in full in the last issue of the REVIEW.

Realizing that there was some danger of this change in plan flooding the market especially after the first of the year, it was also the understanding that if, at any time after January 1, 1930, it was found that the dealers were receiving more basic milk than they could sell as fluid milk and table cream, the farmers should be paid the basic price for such percentage of their basic quantities as was being sold as fluid milk and table cream, and surplus price for the balance of their established basic quantities.

This understanding will be carried out in the following manner:—If the dealers find that they have an excessive amount of basic milk they shall demonstrate to Dr. Clyde L. King, Milk Arbitrator, through their records, the percentage of the basic quantity received by each one which they are compelled to manufacture; and Dr. King shall thereupon determine the percentage of the established basic quantities which is to be paid for at the basic price and at the surplus price.

From the experience obtained in this market over the past thirteen years, it is well established that when producers take undue advantage of a price increase, the result is always a price reduction due to excessive production. The officers of the Inter-State and the Board of Directors are urging at all meetings which they are attending that milk producers take this opportunity of culling out their "boarder" cows and that all farmers make a careful analysis of the capacity of their farm; to produce roughage and pasture during

Continued on page 9

BASIC PRICE

WILL BE PAID

FOR ALL MILK

DURING

October, November, December

1929

Following a conference with co-operating buyers, it has been agreed that producers may make a new basic for 1930, in October, November and December, 1929.

Either the higher of this Fall Average or the Average of the "Last Three Years" will be used as the Basic Average for 1930 shipments.

Changes in By-Laws to Be Considered at Annual Meeting

As outlined in the call of the Annual Meeting of the Inter-State Milk Producers' Association on Page 3 of this issue of the Milk Producers' Review, the stockholders of the Inter-State Milk Producers' Association will have presented to them for adoption an amendment to the by-laws. This amendment consists of an additional paragraph to Article 15, defining the powers and duties of the Board of Directors.

This proposed change is the result of several years' study by the Board of Directors, the officers and our attorneys in connection with the Cooperative Division of the United States Department of Agriculture.

The purpose of the proposed amendment is to put the Association four-square in line with present cooperative laws. It has the approval of all the authorities who have studied it. It protects the interests of all our members. New members joining the Association after its adoption will have all the rights and privileges of the Association as long as they remain active in the milk producing business.

In considering the value of this step to the Association it is well to bear in mind that when the Association was incorporated, there were no cooperative laws, Federal or State, applicable to the modern type of collective bargaining association. After trying for four months to use the Pennsylvania Cooperative Law, then in existence, we were forced to fall back on the general corporation laws of the State of Delaware. Since our organization was formed, almost all the states, likewise the Federal government, have passed cooperative marketing laws having very definite provisions which limit the powers and the field of action of a "coop."

It has been recognized by the United States Government and our state governments that our organization, in practice, has been thoroughly cooperative; and in spirit and thought, in line with the present day cooperative movement, but our legal structure has been recognized to be, in some respects, deficient.

The so-called Capper Volstead Cooperative Marketing Law, administered by the United States Department of Agriculture, covering cooperatives throughout the United States, states that a cooperative must be composed of persons and do business with persons of whom a majority are bona-fide producers of products handled by the cooperative. The department construed this to mean that a very large portion of the members of the organization must be actively engaged in producing the products to be sold by the "coop". The Directors and officers of the organization have recognized this situation for a long time and have been seriously considering the matter. Numerous discussions with our attorneys have taken place. Finally a conference was called of representatives of the United States Department of Agriculture, Cooperative Marketing Division, our attorneys, and our Executive Committee of the Association. After going over the matter very thoroughly the government officials stated that at present our organization was in line with the law, but that we were rapidly approaching a condition where the so-

Continued on page 7

Inter-State Directors Hold Bi-Monthly Meeting

The regular bi-monthly meeting of the Board of Directors of the Inter-State Milk Producers Association, was held at the office of the association, in Philadelphia, on September 25th and 26th. The following officers and directors were present: H. D. Allebach, president; Frederick Shangle, vice-president; Robert F. Brinton, treasurer; F. M. Twining, assistant treasurer; Robert W. Balderston, secretary; I. R. Zollers, assistant secretary and the following directors: S. K. Andrews, Dorchester Co., Md.; J. H. Bennetch, Lebanon Co., Pa.; Ira J. Book, Lancaster Co., Pa.; E. H. Donovan, Kent Co., Del.; E. Nelson James, Cecil Co., Md.; J. W. Keith, Queen Anne's Co., Md.; H. I. Lauver, Juniata Co., Pa.; S. Blaine Lehman, Franklin Co., Pa.; I. V. Otto, Cumberland Co., Pa.; J. A. Poorbaugh, York Co., Pa.; C. F. Preston, Chester Co., Pa.; Albert Sarig, Berks Co., Pa.; John Carvel Sutton, Kent Co., Md.; C. C. Tallman, Burlington Co., N. J.; R. I. Tussey, Blair Co., Pa.; Harry B. Stewart, Huntingdon Co., Pa.; S. U. Troutman, Bedford Co., Pa.; F. P. Willits, Delaware Co., Pa. and A. B. Waddington, Salem Co., N. J. In addition to these directors the field forces of the Inter-State Milk Producers' Association Testing Department, and those of the Quality Control Department of the Dairy Council attended the meeting.

At the opening session the minutes of the previous directors meeting and those of the executive committee held since the last meeting of the Board were approved. Reports were made by the secretary and the treasurer and current bills were approved.

Formal reports of the Testing Department and of the Quality Control Department were presented by F. M. Twining and C. I. Cohee, respectively.

President Allebach in presenting to the Directors the general milk marketing conditions, referred to the recent advance in price on basic milk, under the decision made by Dr. Clyde L. King, who arbitrated the differences between the buyers and our association. He also outlined the more recent program under which members would make a new basic during October, November and December, 1929, and that the higher of this falls basic or that of the recently adopted plan would be used as the 1930 basic average, and that all milk shipped would be paid for during October, November and December 1929, at full basic prices. He also referred to the fact that should there be an extraordinary surplus of basic milk during the early part of next year a reduction in the percentage to be paid for at full basic prices would be made.

He also cautioned the Directors that they advise the members of the association that any unusual increase in the supply, either during the present fall or during the winter generally would unquestionably flood the market and might result in a decrease in the present established price.

Formal report on the Tariff situations were made by J. O. Eastlack, statistician; a report on the National Farm Board by F. P. Willits, R. W. Balderston, and on the Institute of Co-operation by J. Thornton Plummer, and Frederick Shangle, Chairman of the Annual Meeting Program Committee, who reported on the proposed program for that meeting.

Second Days Session

The second days session was largely given over to field reports by the various directors.

General reports of crop and milk production conditions were generally unsatisfactory. In but very few sections of the Philadelphia Milk Shed were conditions normal. There has been general

damage to all crops and to pasture condition by the lack of rainfall during the summer. Hay crops have been so badly damaged that it is believed that there will be an extreme shortage next year. Corn, wheat and other grain crops are well below the average. Hail has taken its toll in many sections, some quite seriously. Frost has been heavy in some parts of the territory.

The rains which fell practically all over the section late in September are expected to have little effect in rejuvenating pastures or the helping of conditions for next years pasture.

Ralph Clayberger, Chairman of the Agricultural Committee of the Philadelphia Chamber of Commerce, made an interesting address to the Board on the marketing facilities of Philadelphia, particularly in connection with fresh fruits and vegetables.

"I believe Pennsylvania, New Jersey, Maryland and Delaware, our nearby states should furnish the Philadelphia market with its fresh fruit and vegetables supply, but the demand exceeds the supply. The supply nearby the city represents but one quarter of the demand. The average haul of car-lots shipments to Philadelphia is 1500 miles.

"Consumers demand the best of every product, in season and out of season. They don't care where the fruit and vegetables come from, but they want them and are willing to pay for them.

Facilities for the rapid handling of fruits and vegetables in the Philadelphia market have been greatly increased. A new terminal market in Philadelphia occupies 50 acres of ground in South Philadelphia. Its yards hold 550 cars. It can handle 350 cars in one night and can handle 20 million packages annually.

Local producers, in many cases fail to properly grade their products. Distant producers do—and that is the whole story of lack of demand for local products. The consumer wants graded products and refuses to buy ungraded products—even at lower prices. To have a ready market all farm products must be graded and must continuously stand up to the grade.

Secretary Balderston then outlined the proposed change in the By-Laws of the association as well as a proposed change in the form of contract which will be presented to the stockholders at the Annual Meeting. (This program is fully explained on page 1 of this issue of the Milk Producers' Review). Directors were instructed to outline this program at the coming meetings of the Local Units, so that the delegates can intelligently vote on the proposed changes.

Secretary Balderston announced that the terms of the following directors would expire with the date of the coming annual meeting and their successors are to be elected. They include the following: F. P. Willits, Ira J. Book, H. D. Allebach, E. H. Donovan, R. F. Brinton, Albert Sarig, S. Blaine Lehman and S. K. Andrews.

Ayrshires Making High Production Records

Testing under the Ayrshire Herd Test plan, the eight Ayrshires owned by Barclay Farms, at Rosemont, Pennsylvania, during July, secured the second highest production average in Pennsylvania, with an average of 775 pounds of 3.82% milk, 29.57 pounds of butterfat. Every cow in the herd that has once freshened was included in computing this average, regardless of age or stage of lactation, reports Advanced Registry Superintendent W. A. Kyle, of the National Ayrshire Breeders' Association, at Brandon, Vermont.

Montgomery County Holstein Bull Association

By R. G. WALTZ

After ten years of cooperative effort, the members of the Holstein Bull Association of Montgomery County, Pennsylvania, are now ranked among the leading successful breeders of Holstein cattle in Pennsylvania and probably in the United States.

This classification was one of the first bull associations formed in the state of Pennsylvania. It was organized in 1919 with 48 members and 6 bulls. These foundation bulls were all of outstanding pedigree and from cows producing 1000 pounds of butter, or the equivalent, within a year.

Tested for T. B.

A year following the organization the members of the association voted that it should be a requirement in using the association bulls to have the herds of the members tested for tuberculosis. This action resulted in about 50 per cent of the members withdrawing from the organization and the remaining 50 per cent losing over half of their herds. This was quite a setback to the breeding program because many of the cows carrying calves sired by

association with the leading herds in the association. The most outstanding of these proved bulls is possibly Sir Aagie Segis Cornucopia, whose six daughters in cow testing association averaged 12,190 pounds of milk and 467 pounds of butterfat. This is an increase of 20 per cent in milk production and 30.7 per cent in butterfat production over the records of very creditable producing mothers. The butter fat test was also raised from 3.5 per cent to 3.8 per cent. The next most outstanding bull is King Pontiac Segis Pondyke whose five daughters have produced 909 pounds of milk and 421 pounds of butterfat, which is an increase of 28.4 per cent more milk and 31.4 per cent butterfat.

Meadowhold Bromide Hartog's cow testing association daughters produced 16,625 pounds of milk and 557 pounds of butterfat, an increase in production of 30.6 per cent more milk and 28.2 per cent more butterfat than their outstanding producing mothers produced. Meadowhold Hartog Funderne increased the but-



Winterthur Best Jo Segis 13thid, one of the bulls in association recently purchased from Winterthur Farms, now on farm of H. D. Allebach, Trappe, Pa.

these bulls lost in the test, as well as a few head of the offspring. This set the association back in its breeding program to almost the beginning.

Increase in Purebreds

At the time the association was formed there were about 73 head of purebred cattle and 284 grades owned by the members. At the present time nearly all herds are 100 per cent purebred and only a few head of grade cattle remain in the herds. In order to find what influence the association had upon this improvement in the herds relative to registered stock, a survey of the members who had withdrawn from the association at the time the T. B. test was made indicated that the grade animals in the herds of these withdrawing members were practically the same as at the time of organization and that there had been no increase in the number of purebred animals.

Cow Testing Association Results

At the annual meeting of the bull association in 1923 the cow testing association project was discussed with an idea of finding out the value of these association bulls. As a result of this discussion a cow testing association was formed and 17 of the 25 members of this association were members of the bull association. The results of this cow testing association work have proved five of the original bulls in the bull association. It is questionable if any other bull association in the United States has had the use of five desirably proved bull association sires. The influence of these five bulls is shown through the results of cow testing associations where we find most of the members of the

terfat production of his daughter 8.9 per cent and maintained a 12,088 pound milk production.

Abortion Test

The next aggressive step taken by the members of this association was to test their herds for abortion. At the present time most of the members of the association are working under the state plan for the eradication and control of infectious abortion in their herds.

New Organization Formed

In 1927 it was decided advisable to reorganize the association and get rid of a large amount of the dead timber which had been carried along since the beginning of the organization. The association was formally disbanded but before the old association was disbanded, the active members of the organization formed a new association under a new constitution and by-laws such as is being used in the newer associations in Pennsylvania and had been found through experience to meet the conditions of bull associations to better advantage. The association was reorganized with seven new blocks composed of 10 members.

Purchasing New Bulls

Following reorganization the active and desirable old bulls of the association were purchased by the new association and also young bulls were added to the association to complete the blocks. These new bulls which have been added in every case are of better pedigrees than those originally owned by the old organization. Three of these bulls are sons of Winterthur Best

(Continued on page ten)

OFFICIAL NOTICE THIRTEENTH ANNUAL MEETING OF THE STOCKHOLDERS

Inter-State Milk Producers' Ass'n Tuesday and Wednesday, Nov. 19th and 20th, 1929

At the Benjamin Franklin Hotel

9th and Chestnut Streets, Philadelphia, Pa.

BUSINESS SESSION, TUESDAY, NOV. 19th at 10:00 A. M.

In accordance with the By-Laws, the Stockholders of the Inter-State Milk Producers' Association will meet at the Benjamin Franklin Hotel, 9th and Chestnut Streets, Philadelphia, Penna., Tuesday morning, November 19th, 1929, at 10:00 A.M., for the purpose of filling vacancies in the Board of Directors, Hearing Reports of Officers and for the transaction of such business as may be necessary.

H. D. ALLEBACH, President
R. W. BALDERSTON, Secretary

PROPOSED AMENDMENT TO THE BY-LAWS

It is proposed that Article 15 of the By-Laws be amended by the addition of the following paragraph: "11. The Directors shall have power to sell shares of the capital stock of the corporation with such limitations and conditions as to voting rights and redemption of the said stock by the corporation, as the Directors, in their discretion, may determine; provided, however, that such limitations and conditions shall take effect only with respect to shares of stock held by persons who are not actually engaged in milk production."

PROPOSED ADDITION TO AGREEMENT WITH MEMBERS

"It is hereby expressly agreed that this Contract may be assigned by Inter-State Milk Producers' Association, Inc., to any Corporation or Co-operative Association organized under the laws of any State, for the purpose of taking over the assets and conducting the business now being conducted by said Inter-State Milk Producers' Association, Inc., and that this contract may be enforceable as to all the terms and conditions thereof by such assignee."

PROGRAM

10:00 A. M.—Election of Directors
Reports of Officers and Auditors
Report of Field and Test Department

2:00 P. M.—President's Annual Address
Discussion of Market Conditions
Addresses by Prominent Dairy Leaders

SPECIAL ENTERTAINMENT FOR THE VISITING LADIES

Tuesday, November 19th at 10:00 A. M.

At Association Headquarters, Flint Building, 219 N. Broad Street, Philadelphia

ANNUAL BANQUET

BENJAMIN FRANKLIN HOTEL

NOVEMBER 19th, 1929, at 6:00 P. M.

13th Anniversary Program Special Entertainment New Dairy Council Plays
BANQUET TICKETS, \$2.50

FRIDAY, NOVEMBER 20th, 1929

8:00 A. M.—Visits to Local Milk and Ice Cream Plants
Visits to Offices of the Inter-State Milk Producers' Association and Philadelphia Inter-State Dairy Council.

10:30 A. M.—General Public Session.

ADDRESSES: HON. W. F. SCHILLING, Federal Farm Board.

PROF. F. F. LINEGER, State College, Pa.

DR. THEODORE B. APPEL, Secretary of Health, Commonwealth of Penna.

PROXY FOR STOCKHOLDERS INTER-STATE MILK PRODUCERS' ASSOCIATION

INCORPORATED 1917

REGISTERED

WITH

CORPORATION TRUST COMPANY OF AMERICA
WILMINGTON, DELAWARE

PROXY

STOCKHOLDERS' MEETING

Know All Men by These Presents

That I, the undersigned, being the owner of
constitute and appoint

shares of the capital stock of the corporation above named, do hereby

my true and lawful attorney in my name, place and stead, as my proxy, at the annual meeting of the stockholders of the said corporation to be held in the Benjamin Franklin Hotel, 9th & Chestnut Sts., Philadelphia, Pennsylvania, on Tuesday, the Nineteenth day of November, 1929, and on such other days as the meeting may be thereafter held by adjournment or otherwise, according to the number of votes I am now or may then be entitled to cast, hereby granting the said attorney full power and authority to act for me and in my name at the said meeting or meetings, in voting for directors of said corporation or otherwise, and in the transaction of such other business as may come before the meeting, as fully as I could do if personally present, with full power of substitution and revocation, hereby ratifying and confirming all that my said attorney or substitute may do in my place, name and stead.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this

day of

1929

Witness: (SEAL)

..... (SEAL)

INTER-STATE MILK PRODUCERS REVIEW

Official Organ of the
Inter-State Milk Producers' Association, Inc.

August A. Miller, Editor and
Business Manager
Frederick Shangle, Advertising Manager
Published Monthly by the Inter-State Milk
Producers' Association, Inc.

Business Office
Flint Building, 219 N. Broad St., Phila., Pa.
24 E. Market St., West Chester, Pa.
Editorial and Advertising Office
Flint Building, 219 N. Broad St., Phila., Pa.
Bell Phone, Locust 5391 Locust 5392
Keystone Phone, Race 5344

Printed by Horace F. Temple, Inc.
West Chester, Pa.

Subscription
50 cents a year in advance
Advertising rates on application

"Entered as second-class matter, June 3, 1920,
at the post office at West Chester, Pennsylvania
under the Act of March 3, 1879."



Last month the Inter-State Milk Producers' Association announced an increase of 25 cents per hundred pounds to the price of basic milk, beginning September 1st.

This month it announces that during October, November and December, all milk will be paid for at full basic price.

It is largely up to the producer whether these prices shall be maintained over a period of time. In connection with this new announcement, it should be remembered that the higher cost of producing milk and the shortage of feed and roughage is such as to make it difficult for many of our farmers to get their average production back to its former level when the number of cows and production per cow have been reduced through testing for tuberculosis or through other causes. The above considerations prompted this change in policy.

The program does not include any radical increase in production. The supply has been about equal to the demand. Therefore, every milk producer should be cautioned not to unduly increase his regular supply.

If the regular supply is greatly increased, but one thing can happen—an over supply and an over supply means but one thing—a reduction in price.

The wise producer will think twice before unduly increasing his present number of cows or over feeding to an extent that will not only break the market, but also conserve the present supply of feed and roughage, with the result that after the basic months have passed he will find himself without an adequate feed supply to carry him over the full winter feeding period.

Think this matter over seriously. Maintain an even productive rate and general marketing conditions will remain unchanged.

This means, you and you and you.

And now we won't have to worry about it until next spring. On Sunday, September 29th, the clocks went back an hour and now the cows can be milked again on a normal basis.

The so-called "Daylight Saving Time" has caused us a lot of worries since last spring. Just about when we are beginning to get used to it—if we ever can—it switches back to the old fashioned Standard Time and then we have to get used to that.

Of course it won't make much difference to the cows, the chickens, turkeys and other animals. They don't pay any at-

tention to it anyway—but it keeps the farmers busy and try as he will he just can't beat it into the heads of his livestock.

Of course it means more work for the farmer, but what does his city brother care about that.

By the way we notice that the good old Standard Time is still used as a basis of important broadcasting over the radio all the year round. "Daylight Saving" hasn't effected the broadcasters any way.

October Milk Prices Interstate Milk Producers' Association, Inc.

All milk shipped to co-operating dealers during October, 1929, will be paid for at full basic prices. There will be no surplus classification during this month.

The price of basic milk, three per cent butterfat content, will, subject to market conditions, be \$3.54 per hundred pounds, or 7.6 cents per quart delivered Philadelphia. The price of milk of the same butterfat content at country receiving stations in the 50 to 61 mile zone will be \$2.96 per hundred pounds. See page 5 for prices at the different mileage zones.

New Brantsville Local

Following its plan of coordinating groups of smaller locals of the association into one local which would be representative of the membership groups in certain sections of the territory, a new local was recently formed at Brantsville, Pa.

This local is a combination of the smaller locals located at Dillsburg, York county; York Springs, Adams county; Mount Top, York county and Big Dam, York county, Pa.

At a meeting of the combined locals, held at Brantsville on September 10th, the new Brantsville Local was formed and the following officers elected: President, Harry Lucas, Dillsburg, Pa.; Secretary and Treasurer, J. P. Heisey, Mechanicsburg, R. D. 2; First Vice-president, A. B. C. Williams, York Springs, Pa.; Second Vice-president, John Seibert, Big Dam, Pa.; Third Vice-president, E. L. Stough, Dillsburg, Pa.; Fourth Vice-President, A. J. Forry, Mechanicsburg, Pa.

The new local will hold a further meeting at Brantsville on November 7th, for the purpose of electing delegates to the Annual Meeting of the Inter-State Milk Producers' Association and to discuss general marketing conditions.

Statement of the ownership, management, circulation, etc., required by the Act of August 24, 1912, of the Inter-State Milk Producers' Review, published monthly at West Chester.

Editor, August A. Miller, Brookline, Delaware county, Pa.; Business Manager, August A. Miller, Brookline, Delaware county, Pa.; Advertising Manager, Frederick Shangle, Trenton, New Jersey; Publisher, Inter-State Milk Producers' Association, Philadelphia, Pa.

Owner: (If a corporation, give its name and the name and addresses of stockholders holding 1 per cent, or more of total amount of stock. If not a corporation give names and addresses of individual owners). Inter-State Milk Producers' Association, 219 North Broad Street, Philadelphia; H. D. Allebach, Trappe, Pa.; Fred Shangle, Trenton, N. J.; R. D.; E. Nelson James, Rising Sun, Md.; E. H. Donovan, Smyrna, R.D., Del.; R. W. Belkerson, Media, Pa.; R. F. Brinton, West Chester, Pa., and 20,900 others.

Known bond holders, mortgages and other security holders holding 1 per cent, or more of total amount of bonds, mortgages, or other securities: (If there are none, so state). None.

Average number of copies of each issue of this publication sold or distributed through the mails or otherwise to paid subscribers during the six months preceding the date shown above. (This information is required from daily newspapers only).

Sworn to and subscribed before me this first day of October, 1929.
Joseph O. Lynch,
Notary Public
My commission expires March 6th, 1931.

Market Conditions

H. D. ALLEBACH

My message in the last issue of the Review, carried with it the price increase of \$.25 per hundred pounds. It also carried with it our Selling Plan for 1930. Since that time we have had a conference with the buyers and have agreed that all milk produced during October, November and December of 1929, shall be paid for at basic price. We also agreed that the producer will receive, for his basic amount for 1930, either the average of the production paid for in 1928, the one paid on in 1929 and his average production this fall added together and divided by three, or the average of his production made this October, November and December—which ever is the higher. In other words he may make a new average this fall if he wants to or can take the three-year average as outlined in our Selling Plan.

We realize that this gives the producer a chance to increase his production and make a larger basic amount if he is able to do so, but we wish to caution you at this time that, if you abuse this privilege we will have to take other steps. If we have more basic milk than is used as liquid milk or table cream, the dealers are to report to Dr. Clyde L. King, and if the farmers are producing more basic milk than the consuming public is consuming as liquid milk and table cream, you will be paid basic price for what the public is using and surplus price for the balance of your established basic milk. For example: if the consuming public is using 90 per cent. of your basic milk, ten per cent. of it will be paid for at the surplus price and, of course, if the production becomes too great there is only one thing to do—reduce the price.

We still believe that the three-year average is the best plan, but many of our producers wanted a chance to make a new basic and some of the distributors felt they should have this chance, so we were practically forced to agree on the proposition. However, we believe it is a dangerous one and it is in your hands and up to you to make or break the market. I am just cautioning you in these few lines, just to show you what the results will be if you over-produce.

We have instructed our directors and fieldmen to arrange for meetings of all the locals in the territory. Since the recent change in reference to the number of delegates to the Annual Meeting, giving locals with over a hundred members extra delegates, it might be advisable to combine some of our small locals into a large one. For instance, Mr. Otto, our director in Cumberland County, and Mr. Zollers, have combined four locals into one at Dillsburg. We might be able to do this same thing in other territories, particularly where the membership is small. At least you might be able to hold a combined meeting of two or three locals and elect your delegates on the same night—having present someone from the office to address the meeting.

New Field Development

The Supplee-Wills-Jones Milk Company has opened two new plants—one at Martinsburg, West Virginia, and the other at Lewistown, Pennsylvania. The Martinsburg plant will receive very little new milk—about one hundred and fifty patrons from that territory were shipping to Iagerstown, Md., and this was found to be too long a haul. This new plant was built largely to take care of that milk.

The Lewistown Plant will receive milk that is now going into other manufacturing plants in that territory and also often shipped into Philadelphia. That plant also will not put very much new milk on the market at this time.

Fluid milk prices under the Philadelphia Selling Plan, will be paid for by co-operating dealers, for the month of September on the following basis:

Grade B Market Milk, (basic quantity average) three per cent butterfat content, f. o. b. Philadelphia, is quoted at \$3.54 per hundred pounds or 7.6 cents per quart.

Grade B Market Milk (basic quantity average) three per cent butterfat content, delivered at receiving stations in the 60 to 61 mile zone, for September, is quoted at \$2.96 per hundred pounds. The usual butterfat differentials and freight rate variations, applying to other mileage zones in the territory are shown by quotation on page 5 of this issue of THE MILK PRODUCERS' REVIEW.

The price of "A" milk under the usual butterfat variations and prices in the different mileage zones in the territory and at "A" stations for September are quoted on page 5 of this issue of THE MILK PRODUCERS' REVIEW.

Surplus Prices
The price of Class I Surplus Milk for September, three per cent butterfat content, delivered f. o. b. Philadelphia is quoted at \$2.34 per hundred pounds or 5.05 cents per quart. The price of Class I Surplus of the same butterfat content, at all receiving stations is \$1.77 per hundred pounds.

September Butter Prices

There have been no wide fluctuations in butter prices during the month. Nevertheless, there has been some minor conditions which have resulted in minor fluctuations both up and down, having largely to do with immediately available supplies. As a whole the price tendency has been upward. Ninety-two score butter, solid pack, New York City, opened the month at 44 cents, there was an almost immediate advance to 45 cents, advancing by fractionable amounts to 47 cents at the close of the month.

At the close of the month the market generally reflected a more settled condition than was the case early or even during mid-month. There has been a fairly active demand for practically all grades showing that the higher levels of prices were well sustained.

Favorable prices for fresh butter allowed a reasonable profit on storage holdings and there has been a rather free movement from storage stocks. A continuous movement from storage is anticipated under present conditions.

The holdings of storage butter at all points, as announced on September 12th, as to holdings on September first was 168,974,000 pounds as compared to 136,175,000 pounds on September 1st, 1928, and the five year average of 144,574,000 pounds.

The average price of 92 score butter solid pack, New York City, on which the surplus price of milk for September was computed was .4581 cents, as compared to .4358 cents for August and .4871 cents for September, 1928.

Improve the Woodlot

Next winter's fuel supply should come from dead and down trees and from crooked and weed trees. Thus will the woodlot be improved.

Uncle Ab says work is a blessing. If you don't believe it ask the man who is out of work.

LATEST MARKET PRICES

The basic price, quoted below for September, 1929, is to be paid by co-operating dealers on the average basic quantity established by each producer. For all milk bought in excess of the basic amount, the surplus price, quoted below for the month of September, 1929, are to be paid.

Surplus milk will be paid for under one classification. Class I, represented by the amount of milk in excess of the basic average, which will be paid for by co-operating dealers on the basis of 92 score butter, solid pack, New York City, 20 per cent.

In the months of October, November and December, 1929, all milk will, subject to market conditions, be paid for by co-operating buyers, as Basic Milk. Surplus milk prices will be eliminated during these three months.

The following quotations are based on 3 per cent butterfat content milk and a differential of 4 cents for each tenth point and 2 cents for each half-tenth point, up or down, and are for all railroad points. (Inland stations carry differentials subject to local arrangements.)

PHILADELPHIA SELLING PLAN
INTER-STATE MILK PRODUCERS' ASSOCIATION PRICES
This price list is issued with the understanding that it is net to the producers and that all buyers using it as a basis of payment to producers, shall in addition thereto make the following contributions and payments:

(1) To the Philadelphia Inter-State Dairy Council 2c per 100 pounds (46 2/3 quarts) of all milk purchased from any producer at prices listed hereon.

(2) To the Inter-State Milk Producers' Association 2c per 100 pounds (46 2/3 quarts) of all milk bought from members of said Association.

(3) To the Philadelphia Inter-State Dairy Council 2c per 100 pounds (46 2/3 quarts) of all milk bought from other producers.

The funds so derived are to be used by the recipients for improving standards of quality in production and distribution of milk in the Philadelphia Milk Shed, for improvements and stabilization of market and for an educational campaign advertising the food value of dairy products.

BASIC PRICE

September, 1929
F. O. B. Philadelphia
Grade B Market Milk

Test Per Cent. 100 lbs. Price Per Qt.

3.05 \$1.54 7.6
3.1 1.58 7.7
3.15 1.60 7.75
3.2 1.62 7.8
3.25 1.64 7.85
3.3 1.66 7.9
3.35 1.68 7.95
3.4 1.70 8.0
3.45 1.72 8.05
3.5 1.74 8.1
3.55 1.76 8.15
3.6 1.78 8.2
3.65 1.80 8.25
3.7 1.82 8.3
3.75 1.84 8.35
3.8 1.86 8.4
3.85 1.88 8.45
3.9 1.90 8.5
3.95 1.92 8.55
4.0 1.94 8.6
4.05 1.96 8.65
4.1 1.98 8.7
4.15 2.00 8.75
4.2 2.02 8.8
4.25 2.04 8.85
4.3 2.06 8.9
4.35 2.08 8.95
4.4 2.10 9.0
4.45 2.12 9.05
4.5 2.14 9.1
4.55 2.16 9.15
4.6 2.18 9.2
4.65 2.20 9.25
4.7 2.22 9.3
4.75 2.24 9.35
4.8 2.26 9.4
4.85 2.28 9.45
4.9 2.30 9.5
4.95 2.32 9.55
5.0 2.34 9.6

When milk is not tested the price f. o. b. Philadelphia is 8 1/2 cents per quart.

SEPT. 1929

Test Per Cent. 100 lbs. Price Per Qt.

3.05 \$1.54 7.6
3.1 1.58 7.7
3.15 1.60 7.75
3.2 1.62 7.8
3.25 1.64 7.85
3.3 1.66 7.9
3.35 1.68 7.95
3.4 1.70 8.0
3.45 1.72 8.05
3.5 1.74 8.1
3.55 1.76 8.15
3.6 1.78 8.2
3.65 1.80 8.25
3.7 1.82 8.3
3.75 1.84 8.35
3.8 1.86 8.4
3.85 1.88 8.45
3.9 1.90 8.5
3.95 1.92 8.55
4.0 1.94 8.6
4.05 1.96 8.65
4.1 1.98 8.7
4.15 2.00 8.75
4.2 2.02 8.8
4.25 2.04 8.85
4.3 2.06 8.9
4.35 2.08 8.95
4.4 2.10 9.0
4.45 2.12 9.05
4.5 2.14 9.1
4.55 2.16 9.15
4.6 2.18 9.2
4.65 2.20 9.25
4.7 2.22 9.3
4.75 2.24 9.35
4.8 2.26 9.4
4.85 2.28 9.45
4.9 2.30 9.5
4.95 2.32 9.55
5.0 2.34 9.6

SEPT. 1929

Test Per Cent. 100 lbs. Price Per Qt.

3.05 \$1.54 7.6
3.1 1.58 7.7
3.15 1.60 7.75
3.2 1.62 7.8
3.25 1.64 7.85
3.3 1.66 7.9
3.35 1.68 7.95
3.4 1.70 8.0
3.45 1.72 8.05
3.5 1.74 8.1
3.55 1.76 8.15
3.6 1.78 8.2
3.65 1.80 8.25
3.7 1.82 8.3
3.75 1.84 8.35
3.8 1.86 8.4
3.85 1.88 8.45
3.9 1.90 8.5
3.95 1.92 8.55
4.0 1.94 8.6
4.05 1.96 8.65
4.1 1.98 8.7
4.15 2.00 8.75
4.2 2.02 8.8
4.25 2.04 8.85
4.3 2.06 8.9
4.35 2.08 8.95
4.4 2.10 9.0
4.45 2.12 9.05
4.5 2.14 9.1
4.55 2.16 9.15
4.6 2.18 9.2
4.65 2.20 9.25
4.7 2.22 9.3
4.75 2.24 9.35
4.8 2.26 9.4
4.85 2.28 9.45
4.9 2.30 9.5
4.95 2.32 9.55
5.0 2.34 9.6

SEPT. 1929

Test Per Cent. 100 lbs. Price Per Qt.

3.05 \$1.54 7.6
3.1 1.58 7.7
3.15 1.60 7.75
3.2 1.62 7.8
3.25 1.64 7.85
3.3 1.66 7.9
3.35 1.68 7.95
3.4 1.70 8.0
3.45 1.72 8.05
3.5 1.74 8.1
3.55 1.76 8.15
3.6 1.78 8.2
3.65 1.80 8.25
3.7 1.82 8.3
3.75 1.84 8.35
3.8 1.86 8.4
3.85 1.88 8.45
3.9 1.90 8.5
3.95 1.92 8.55
4.0 1.94 8.6
4.05 1.96 8.65
4.1 1.98 8.7
4.15 2.00 8.75
4.2 2.02 8.8
4.25 2.04 8.85
4.3 2.06 8.9
4.35 2.08 8.95
4.4 2.10 9.0
4.45 2.12 9.05
4.5 2.14 9.1
4.55 2.16 9.15
4.6 2.18 9.2
4.65 2.20 9.25
4.7 2.22 9.3
4.75 2.24 9.35
4.8 2.26 9.4
4.85 2.28 9.45
4.9 2.30 9.5
4.95 2.32 9.55
5.0 2.34 9.6

SEPT. 1929

Test Per Cent. 100 lbs. Price Per Qt.

3.05 \$1.54 7.6
3.1 1.58 7.7
3.15 1.60 7.75
3.2 1.62 7.8
3.25 1.64 7.85
3.3 1.66 7.9
3.35 1.68 7.95
3.4 1.70 8.0
3.45 1.72 8.05
3.5 1.74 8.1
3.55 1.76 8.15
3.6 1.78 8.2
3.65 1.80 8.25
3.7 1.82 8.3
3.75 1.84 8.35
3.8 1.86 8.4
3.85 1.88 8.45
3.9 1.90 8.5
3.95 1.92 8.55
4.0 1.94 8.6
4.05 1.96 8.65
4.1 1.98 8.7
4.15 2.00 8.75
4.2 2.02 8.8
4.25 2.04 8.85
4.3 2.06 8.9
4.35 2.08 8.95
4.4 2.10 9.0
4.45 2.12 9.05
4.5 2.14 9.1
4.55 2.16 9.15
4.6 2.18 9.2
4.65 2.20 9.25
4.7 2.22 9.3
4.75 2.24 9.35
4.8 2.26 9.4
4.85 2.28 9.45
4.9 2.30 9.5
4.95 2.32 9.55
5.0 2.34 9.6

SEPT. 1929

Test Per Cent. 100 lbs. Price Per Qt.

3.05 \$1.54 7.6
3.1 1.58 7.7
3.15 1.60 7.75
3.2 1.62 7.8
3.25 1.64 7.85
3.3 1.66 7.9
3.35 1.68 7.95
3.4 1.70 8.0
3.45 1.72 8.05
3.5 1.74 8.1
3.55 1.76 8.15
3.6 1.78 8.2
3.65 1.80 8.25
3.7 1.82 8.3
3.75 1.84 8.35
3.8 1.86 8.4
3.85 1.88 8.45
3.9 1.90 8.5
3.95 1.92 8.55
4.0 1.94 8.6
4.05 1.96 8.65
4.1 1.98 8.7
4.15 2.00 8.75
4.2 2.02 8.8
4.25 2.04 8.85
4.3 2.06 8.9
4.35 2.08 8.95
4.4 2.10 9.0
4.45 2.12 9.05
4.5 2.14 9.1
4.55 2.16 9.15
4.6 2.18 9.2
4.65 2.20 9.25
4.7 2.22 9.3
4.75 2.24 9.35
4.8 2.26 9.4
4.85 2.28 9.45
4.9 2.30 9.5
4.95 2.32 9.55
5.0 2.34 9.6

SEPT. 1929

Test Per Cent. 100 lbs. Price Per Qt.

3.05 \$1.54 7.6
3.1 1.58 7.7
3.15 1.60 7.75
3.2 1.62 7.8
3.25 1.64 7.85
3.3 1.66 7.9
3.35 1.68 7.95
3.4 1.70 8.0
3.45 1.72 8.05
3.5 1.74 8.1
3.55 1.76 8.15
3.6 1.78 8.2
3.65 1.80 8.25
3.7 1.82 8.3
3.75 1.84 8.35
3.8 1.86 8.4
3.85 1.88 8.45
3.9 1.90 8.5
3.95 1.92 8.55
4.0 1.94 8.6
4.05 1.96 8.65
4.1 1.98 8.7
4.15 2.00 8.75
4.2 2.02 8.8
4.25 2.04 8.85
4.3 2.06 8.9
4.35 2.08 8.95
4.4 2.10 9.0
4.45 2.12 9.05
4.5 2.14 9.1
4.55 2.16 9.15
4.6 2.18 9.2
4.65 2.20 9.25
4.7 2.22 9.3
4.75 2.24 9.35
4.8 2.26 9.4
4.85 2.28 9.45
4.9 2.30 9.5
4.95 2.32 9.55
5.0 2.34 9.6

SEPT. 1929

Test Per Cent. 100 lbs. Price Per Qt.

3.05 \$1.54 7.6
3.1 1.58 7.7
3.15 1.60 7.75
3.2 1.62 7.8
3.25 1.64 7.85
3.3 1.66 7.9
3.35 1.68 7.95
3.4 1.70 8.0
3.45 1.72 8.05
3.5 1.74 8.1
3.55 1.76 8.15
3.6 1.78 8.2
3.65 1.80 8.25
3.7 1.82 8.3
3.75 1.84 8.35
3.8 1.86 8.4
3.85 1.88 8.45
3.9 1.90 8.5
3.95 1.92 8.55
4.0 1.94 8.6
4.05 1.96 8.65
4.1 1.98 8.7
4.15 2.00 8.75
4.2 2.02 8.8
4.25 2.04 8.85
4.3 2.06 8.9
4.35 2.08 8.95
4.4 2.10 9.0
4.45 2.12 9.05
4.5 2.14 9.1
4.55 2.16 9.15
4.6 2.18 9.2
4.65 2.20 9.25
4.7 2.22 9.3
4.75 2.24 9.35
4.8 2.26 9.4
4.85 2.28 9.45
4.9 2.30 9.5
4.95 2.32 9.55
5.0 2.34 9.6

SEPT. 1929

Test Per Cent. 100 lbs. Price Per Qt.

3.05 \$1.54 7.6
3.1 1.58 7.7
3.15 1.60 7.75
3.2 1.62 7.8
3.25 1.64 7.85
3.3 1.66 7.9
3.35 1.68 7.95
3.4 1.70 8.0
3.45 1

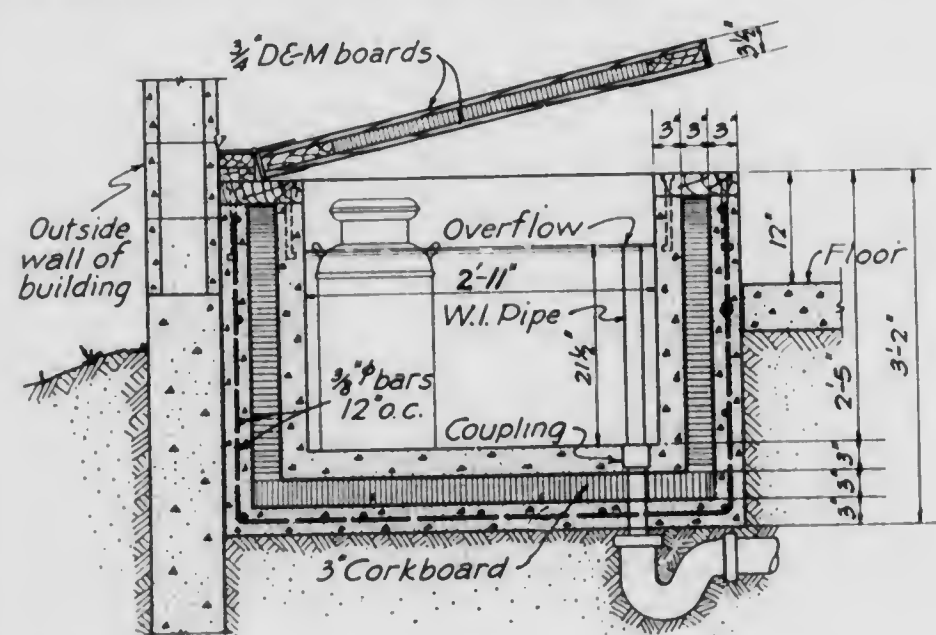
Construction of Insulated Cooling Tank

J. M. HORNER, Portland Cement Association

Unseasonable weather causes a great loss to the milk producer. A prolonged warm spell in early spring always registers in the receiving stations, and causes a marked decrease in marketable milk. During the summer months, it is constantly a problem to deliver milk at low temperatures; milk which has been held under conditions that insure low bacteria count. On the other hand many producers are troubled with freezing in seasons of low temperature. A conservative estimate based on available data, indicates that the loss to farmers through sour milk amounts to over \$6,000,000 annually in the fluid milk industry alone. If there is added to this the marketable milk offered for sale

nets and tanks purchased on the market, and are permanent. Cork board is most commonly used for insulation, although other suitable insulating material may be employed instead of the cork if desired. The purpose of the insulation is to reduce the passage of heat into the tank, thereby reducing cost of refrigeration and time required in cooling. Less danger from freezing is present in such a tank. It is essential that water-tight concrete be used.

The first step in the construction of the cork insulated cooling tank is to determine the size required from the following table, which also gives a schedule of materials needed:



Cross section of insulated tank. Scale 1 inch

to dairy manufacturing plants the total would amount to at least \$20,000,000 annually.

These figures are based on reports of the United States Department of Agriculture in the 1927 year book. The producer, consequently, is turning to the college and government authorities, asking for the remedy to this unwholesome and unprofitable situation. Cooperating with these departments are various industrial organizations which are endeavoring to solve the problem in a practical way. Where never failing sources of water are available, the temperature of which never exceeds 45 degrees, the problem does not exist. Here a simply constructed tank of 4-inch concrete walls and floor is sufficient. Few producers really know the temperature range of their cooling water, so that control of milk storage has been a matter of hope and expectation. A recent survey revealed the fact that there were less than 2% in a dairy community of 600 producers who actually knew their storage water temperatures.

Where water temperatures do not provide sufficient cooling, it is certain that milk can never be stored without additional cooling help. There is a growing interest in refrigeration units, while considerable research has been conducted by various large industrial interests. Whether ice, or mechanical refrigeration is used, one of the first steps in cooling is the construction of a suitable tank or container. The most practical unit in this case is a tank of known dimensions, constructed with a 9-inch concrete wall and floor, carrying 3-inch of cork in the center of the walls and floor for the purpose of insulation. By using this type of construction, milk is cooled with half the amount of ice, is cooled 10 degrees lower than with ordinary tank and is cooled in half the time. The advantage of a tank so constructed is that provision can be made to take care of a mechanical cooling unit which will fit into the tank, at any time it is desired. Tanks so made on the farm are generally less costly than fabri-

ITEMS—	4-Can	6-Can	8-Can	10-Can
Inside Dimensions (all tanks 28" deep inside).....	2' 11"	2' 11"	2' 11"	2' 11"
Cement, bags.....	9 1/2	11	13	17
Sand, cu. yds.....	3/4	1	1 1/2	1 3/4
Gravel (pebbles), cu. yds.....	1	1 1/4	1 3/4	2
1/2" Reinforcing Steel (lin. ft.).....	152	196	254	288
3" Insulation, sq. ft.....	70	82	108	124
2" Insulation for Cover, sq. ft.....	20	25	36	42
Asphalt, lbs.....	75	88	116	133
*Number of 40-quart cans cooled per 24 hours.				

Locate it where most convenient in the milk house. The tank is usually built so that its top is only 12 inches above the floor level to lighten the labor of handling the cans. This requires excavation where the tank is to be placed. The area excavated should be considerably larger than the base of the tank to provide room in setting forms.

Provision should be made for the tank to drain, locating drain fixtures so that the coupling (see drawing) will come flush with the floor surface of the tank. The base slab is then placed, locating reinforcement near the bottom of the concrete. There should be at least one inch of concrete below the steel. Reinforcement consists of 1/4 inch rods spaced 12 inches apart or wire fabric weighing approximately 35 pounds per 100 square feet. The steel should be well braced to hold it rigid in the correct position until the base slab has hardened. Reinforcement is placed only in the base slab and in the outer wall of the insulated tank.

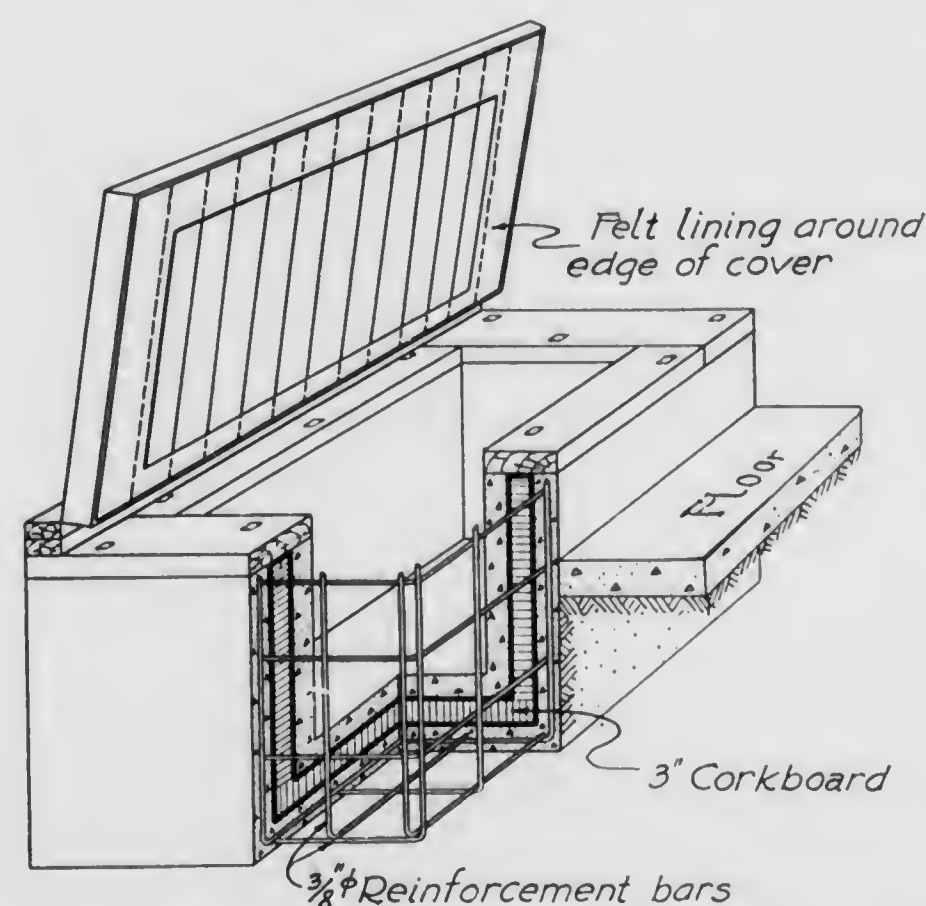
After placing the concrete for the base slab it is finished with a wooden float, then insulating material is cut to sizes needed and placed conveniently close to the job site. When concrete has had sufficient time to harden, usually 24 hours, it is mopped with hot tar, asphalt, or other water-repelling material. Then insulation for the floor is placed. To prevent water getting into the insulation and to insure tight joints between pieces, the edges and surfaces are mopped with hot tar, asphalt or other water-repelling ma-

terial immediately before placing the slabs in position. As an additional precaution to keep moisture out, the insulating material is often covered with a single-ply roofing paper. In this case a second coat of asphalt serves to stick the roofing paper to the insulation.

The entire base slab is covered with insulation with the exception of a strip three inches wide entirely around the edge where wall and floor join. Next, the outer wall forms are placed. The wall of the milk house will serve as outer form on one end and side, in which case tar paper is placed on the wall surface to prevent adhesion between wall and tank. After the outer form is placed the insulating material is erected three inches away from form faces, taking care to locate the reinforcement about one inch from outer form faces. Next, the inner form is placed. This should be hung from cross pieces over the top, as it cannot rest on the base slab, but must be held 4 inches above the top of the floor insulation. Both inner and outer forms must be well braced and the insulating material carefully located midway between form faces.

Placing the Concrete

Concrete for the floor of the tank is placed first, bringing it to the same elevation as the bottom of the inner form. Grooves in the floor surfaces which facilitate cooling by providing circulation of water under the cans are formed using small strips beveled to the shape of the grooves. After concrete for the floor has had time to harden sufficiently to hold its shape (about 2 to 3 hours), the concrete is placed in the wall forms, taking care to fill the forms evenly on both sides of the insulation, and in 3 inch layers, each of which is carefully spaded as it is placed.



Perspective view of insulated concrete milk cooler tank

Care must be taken not to injure the protective covering on the cork when placing concrete.

When wall forms are completely filled, bolts are placed in the top of the wall, projecting about 2 inches, to which the wooden plate for the cover is later attached.

The builder of an insulated tank may vary the order in which the work is done by first building the outer shell with its reinforcement, then erecting the insulation against floor and wall, and last, con-

structing the inner concrete wall. The merit of this method is that it permits more ready inspection of the insulating material during the progress of the work and insures a more thorough job of water-proofing it.

The concrete should be allowed to harden a few days before forms are removed. Forms should be removed carefully, after which the tank cover may be fitted. The cover should fit snugly and of rigid construction to prevent warping. Framework for the cover is built of 2 x 4's covered with dressed and matched boards after the corkboard has been placed in the frame. The cover is fastened in place with galvanized hinges and should be well painted on all sides and edges. It should fit tightly. Felt lining is sometimes used around the edge of the cover to provide additional protection against passage of heat.

For the construction of insulated tanks, a concrete mixture consisting of 3 3/4 gallons of water per sack of cement should be used, to which such amounts of moist sand and pebbles are added as will produce a rather thick consistency. The amount of water is decreased to 3 1/2 gallons if the sand and pebbles are wet, and increased to 4 1/2 gallons if these are thoroughly dry.

As a trial batch combine materials in the proportion of 1 sack of cement, 2 cubic feet of sand and 2 cubic feet of pebbles (1-2.2 mix) and water (not over 4 1/2 gallons). Use pebbles up to 1/2 inch in size. It may be necessary to change the proportions and amounts of sand and pebbles slightly in order to obtain a smooth, plastic workable mixture that will place and finish well. For example, suppose the trial proportions suggested

Changes in By-Laws to Be Considered at Annual Meeting

Continued from page 1

called "dead-wood" in our membership would have to be eliminated or it would bring the Association outside of the law.

A number of propositions were discussed some of which called for complete change in the form of organization, other for setting up a new one to take over assets of the Association. After going over the whole matter it was deemed best that our attorney should draw up an amendment to the By-Laws which would make the least change in our legal structure and be least disturbing to the relationships between members and the Association.

The proposed change in By-Laws, in substance, provides that the new members shall receive a new type of stock certificate which gives them all rights and privileges in the Association during such time as such rights and privileges are needed by them or are of direct value, in other words, while they are producing milk. It provides that while temporarily out of business they can still hold membership in the Association, but when they permanently discontinue dairying, or they die, the membership relation can be automatically discontinued, after a suitable lapse of time. The rights of all present members, both financial and otherwise, in the Association are thoroughly safeguarded. New members, likewise, will have, while they are members, all their rights protected.

The only purpose of the amendment is to put in the hands of the Association a method by which it can keep its membership alive and active.

The proposed change also will promote office efficiency because at the present time it is expensive and laborious, and sometimes impossible to keep in touch with deaths, removals and discontinuances. A large number of copies of the Review continue, for sometime, to go to the dead-letter office until we can catch up with the mailing address of such members as have removed without notifying us.

Proposed Addition to Contract

The proposed addition to the contract, as outlined in the call of the meeting, on Page 3, is suggested as a step looking toward the protection of the Association in the future. It is proposed to be inserted so that the Association can, at any time, if it is found necessary, reorganize under present day cooperative laws. It does not change the status of the member of his relation to the organization. It may never be used, but if at some time it is needed for safeguarding the interests of the members, it will save a complete new sign-up of our membership.

It is proposed that these changes in the By-Laws be explained to members at local meetings so that delegates may come to the Annual Meeting fully prepared to vote on this important question.

Protect Farm Tools

A good farm machinery shed will soon pay for itself by prolonging the life of the tools it protects. This happens, however, only when the shed is used for its intended purpose. Machinery left standing in the field after the seasonal use is past gets no protection from the destructive elements, regardless of the fact that there may be a good shelter for it. Make both machinery and shed pay for themselves by introducing them to each other.

Uncle Ab says since most of us have to work, it is well to learn what work brings us the greatest returns in both satisfaction and money.

Dairy Feed

Poultry Feed

Build Health and you Build Profits



One thing has been definitely proved through years of experimenting and practical feeding—health is the first step to success. Feeding profits depend on health—and health depends on feed.

For seventeen years Larro Feeds have been made according to that principle. Many formulas and many feeds have been tested at the Larro Research Farm. New ideas have been taken to the cows and chickens themselves to prove their worth in making milk or eggs.

Larro Feeds are built with one idea in mind—HEALTH FIRST,—for only healthy animals are at their best. Years of experiment have shown what feeds and feed combinations are best—and only Larro can make such feeds. By processes used only in the Larro mill, Larro Feeds are made so that they do not vary from one year's end to the other. Every sack of Larro reaches the feeder clean, palatable and with the same uniform blend of wholesome, health-building ingredients.

Anyone who has ever used Larro Dairy Ration or Larro Poultry Mash will tell you that they are the most profitable of all feeds for Dairy Cows and Poultry. Month in and month out they are built to the same ideal—founded on the inseparable alliance of health and profit.

Substitute satisfaction for uncertainty in your feeding. Order Larro today.



Larro

FEEDS THAT DO NOT VARY FOR POULTRY · HOGS · DAIRY

Have you tried Larro Flour? The new general purpose flour. Ask your dealer.

THE LARROWE MILLING COMPANY, DETROIT, MICHIGAN



In Between Bites

"Mother, I want a cookie," says the healthy, hungry youngster. Will a trip to the cookie crock satisfy this craving? Why not a cookie-day now and then? The result will please big and little and help with lunch packing too.

Whenever we add fruit to our recipes we add nuggets of health. This recipe will fill the crock to over-flowing.

Date Cookies

(76 Cookies)

1 1/2 c. sugar
1 c. butter
1 1/2 c. milk
1/4 c. boiling water
3 eggs
1/2 tsp. soda
2 tsp. cinnamon

or vanilla

1 tsp. nutmeg
1 tsp. baking powder
3 c. flour
1 lb. chopped dates
1 c. chopped walnuts

Cream butter, add sugar and eggs. Alternating—add dry ingredients and liquid, then nuts and dates. Drop in teaspoonfuls on buttered pan and bake.

Keep your fancy cutter shined with use. The various shapes—bunnies, hearts, and such, will delight the children. A plain sugar cookie is exceptionally good for this. There is none better than the following recipe.

Sugar Cookies

(Makes a large amount)

3 c. sugar
3 eggs
1 1/2 c. butter
1/2 c. milk

1 level tsp. soda

Cream butter, add sugar and eggs. Then add flour and soda alternating with milk. Add enough flour to make stiff enough to roll on board. Chopped nuts or nutmeg sprinkled on top makes a nice addition. Cut and bake in a quick oven.

Molasses is always good because it adds iron to our diet. Needless to say, a molasses drop cookie will be most popular.

Molasses Drop Cookie

(36 cookies)

1/2 c. butter
1/3 c. sugar
1/3 c. molasses
1 beaten egg
1 c. flour
1/2 tsp. baking powder

2 squares melted chocolate
3/4 c. chopped nut meats

Cream the butter, add the other ingredients in the order given. Drop from a teaspoon on a buttered pan. Nuts may be omitted. Bake 10 minutes in a moderate oven.

The week following one of "Happy" Goldsmith's talks in the Junior High School, No. 1, in Trenton, New Jersey, Mr. H. P. Collins, the principal, reported that there had been a twelve per cent drop in the candy sales of the school cafeteria, while milk sales increased eight per cent and ice cream eleven per cent.

"Cheese" is the title of an excellent handbook on that subject published this fall by the National Dairy Council. It contains concise and interesting information for dietitians, home economic teachers and many others.

For health and comfort the weight of children's clothing should hang from the shoulders rather than from the waist.

Grange Memorial Dormitory

"What is it?" Just a building which is to become a home for "girl students," for which the Patrons of Husbandry (better known as the Grange) raised a fund for its erection.

"Where is it?" On the College Campus in the Borough of State College, Penna. And the last query from my questioner was, "Why—Why was the Grange interested to do this?"

There came a time when some one conceived the idea of a "Greater State College" for Pennsylvania. This meant new buildings, new equipment and, of course, new and enlarged interest on the part of the people of the State. To every person our appeal was made—to every organization. The Grangers were evidently thinking and then (as so often happens when there is a need) when the next State Meeting took place, a resolution

thing for a fraternal organization to do. Undertaken just when there was a slump in returns from agriculture, many were handicapped in their gifts. But never once was any thought harbored but that of "finishing the task."

It was unique that the gifts were small in quiet steady work that accomplished the big thing. Only three one thousand dollar gifts were recorded. Two or three of five hundred, and all the rest of the \$100,000 came in less sum.

Some times they were spurred on by some remark such as Dr. Hetzel made after studying the needs, "Pennsylvania has not been fair to its women here at the College."

The story of this dormitory cannot be told without saying Pennsylvania State Grange Cook Book, one of the greatest educators that went to the individual home telling the story that something was



came from two different parts of the State, but suggesting practically the same thing. "That the Grange should show its appreciation for the service of the College to the agricultural interests of the state by the erection of a suitable memorial building. Then, indeed, came the query, "A building but for what purpose?"

A committee was appointed to visit the College, keeping in mind "the greatest need." The needs were many, later reported the Committee, but the most outstanding was living quarters for women students. Out of every five making application for admission, only one could be taken. The greatest need was found and the Grange, who long ago decided to admit women to membership on an equal with men, who believed in an educated womanhood, was surely the one to make possible a larger woman student body.

Little did the Grange realize that day when they unanimously voted to uphold the decision of the Committee the stupendous task before them. It was a unique

being done. True, the profit from these helped to swell the fund, but the interest brought an increased gift—sometime from a Supper from recipes from the book. Thirty thousand were printed and sold. A unique thing in cook books but the women had to send their best recipes. They did not all stop at home, but traveled abroad.

The building is still only brick and mortar and beams, but is ready this fall to become a home; ready for a bit of living; a lot of working, and a lot of joyous times. It was dedicated August 14th.

And, as it was announced, "We now open the doors of this building to the young womanhood of Pennsylvania." And trooping down the walk and up the steps into the building in true student style went fifty young girls with armsful of books. The vision seemed fulfilled and the big audience broke into applause. Seven years in the doing; not so long for a thing that is to go down through the years for the upbuilding of the home.

Plans for the Annual Meeting

The Hospitality Committee are already planning for the Annual Meeting at the offices of the Inter-State Milk Producers' Association, on November 19th.

The Association feels that its work can be strengthened by working more closely with its women members. With this thought in mind the Committee have invited Miss Verna Elsinger of the Ohio Farm Bureau Federation to address this meeting. She is well versed in rural community activities and the part any woman can take in strengthening any co-operative movement.

In addition to Miss Elsinger there will be reports by two of the Dairy Council girls on projects they have helped to work out in the schools.

A play, which can be used by Granges and Farmers' Clubs, will be put on by one of the Inter-State Milk Producers' Association Locals.

The luncheon which will be prepared and served by the Nutrition Department sounds especially appetizing and attractive.

Further notices of arrangements will be made in next month's Review.

Committee

Mrs. Robert F. Brinton, Chairman; Mrs. H. D. Allebach, Mrs. Fred Shangle, Mrs. C. I. Cohee, Mrs. A. B. Waddington, Mrs. F. M. Twining, Mrs. R. W. Balderston.

When Dickie Will Not Eat

The twins were lying side by side on the couch each happy with a bottle of milk, when Mrs. Brown ushered Mrs. Harris into the room. "Oh!" she exclaimed, after watching them for a moment, "if Dickie had ever been hungry enough to want to eat! But he never was, and I always had to hold his bottle for him. He was never hungry enough to hold it himself."

Before long dinner was ready. While the meat and vegetables were being served Mrs. Harris was discussing and bewailing the short comings of Dickie's appetite and his father's as well. The child, having thus been reminded of his own whims, did not fail to play his usual part of refusing to touch much of the meal before him. His mother nodded at her guest with an "I told you so," look. As for Dickie, he had merely done what the family evidently expected of him.

One of the greatest mistakes parents can make is to discuss before a child the family dislikes in matters of food. The child likes attention and the fact that what he eats is important enough to be discussed pleases him. He plays up to the situation, knowing that generally he can get something to eat in the kitchen if he is hungry before the next meal.

The best treatment for such a case is avoid all discussion of food at the table. Give the child what he should have, but keep the servings small. He can have more if he eats that up. Then see that he does not "nibble" between meals.

The grown-ups at the table must set him a good example of eating everything without unfavorable comment.

New Buildings for Penn State Opening

When the Pennsylvania State College opened for its 71st year, three new buildings were ready for use by the student body of more than 4000.

A new engineering administration building stands just inside the main campus gateway on the site of the old building destroyed by fire eleven years ago. It is designed to accommodate the administrative officers and many faculty members of the School of Engineering, and its upper floors will be devoted to classrooms and the work of the department of architecture.

Relief for some of the overcrowded conditions that have existed for years in the School of Chemistry and Physics is given in the completion of a second wing of the G. G. Pond Chemistry Laboratory. This new structure is modernly fitted in every respect.

A third building to be opened is the new Grange Memorial dormitory for girls. It is the headhouse in a projected dormitory until later in the fall. A new botany building will be finished in December or January. All these buildings have been provided through gift funds and the 1927 state legislative appropriation.

Wire screens covered with cheesecloth are excellent for pantries and storerooms with windows near the ground, for they keep out dust, yet let in fresh air.

American cheese production totaled 330,819,000 pounds in 1928, which was 23,042,000 pounds more than was made in 1927. This was less than the production of 1925 or 1926.

792 Pennsylvania Herds Win National Awards

Obtaining an average production of more than 300 pounds of butterfat per cow during the past year, 792 Pennsylvania dairymen will be honored by the National Dairy Association, Professor E. B. Fitts, in charge of dairy extension work at the Pennsylvania State College, reports. This number is 139 more than last year, an increase of 21.3 per cent. Forty-seven counties and 77 cow testing associations are represented.

Bradford county leads with 51 herds in six associations. Bucks and Tioga counties each have 32 herds, and Chester, Westmoreland, Mercer and Cumberland counties are tied with 28 each. Of the associations the leading one is Buffalo Valley of Union county, which has 23 qualifying herds or nearly every one in the group. The Central Pennsylvania Guernsey Breeders' Association is second with 22 herds; Millin has 19, and Cumberland No. 1 and Lycoming have 18 each.

Of the 792 qualifying herds, 79 averaged more than 400 pounds of butterfat per cow, five more than 500 pounds, and one more than 600 pounds. This herd was one of registered Holsteins owned by Roy S. Bowen, of Tioga county, and the average per cow was 656.5 pounds. A herd of registered Jerseys owned by H. H. Cooper, of Potter county, ranked second for the year with an average production of 534.6 pounds per cow.

In 1926, the first year that the honor certificates were awarded by the national organization, 335 Pennsylvania dairymen qualified for them; the next year there were 428, and in 1928 the number increased to 653. According to Professor Fitts, all winners who attended the National Dairy Exposition at St. Louis, October 12th to 19th, will receive the honor certificates then. The remaining awards will be distributed by the college dairy extension office.

All Basic Milk This Fall, Producers Can Make New Basic

Continued from page 1

the coming year before increasing too radically the basic quantity under which they have been operating for the past few years. There is almost a temptation to produce more basic milk than can be averaged during each of the following nine months of the year. Some producers for instance, will make a large basic quantity which they never reach again except perhaps during May and June. Such practices tend to upset the market and jeopardize a satisfactory price situation, one which has taken several years of careful market planning and stimulation to effect.

The work of the Inter-State Milk Producers' Association and of the Philadelphia Inter-State Dairy Council can be entirely undone in the next few months if our members do not bear these facts in mind.

When this situation was brought to the attention of Mr. Allebach, at the conference, he said, "I am aware of this situation, but I have full confidence that when the situation is fully explained to them, the members of the Inter-State will be careful not to produce beyond the needs of the market."

Grading is Good Practice

Proper potato grading accomplishes two important results: First, it recognizes the requirements, preferences, and prejudices of the consumer. Second, standard grades adhered to properly establish a common language between buyer and seller in which they can deal with mutual confidence and understanding.

To Save Money on your Feed Bill



WHEN you have feed delivered to your barn, the dealer is forced to charge you not only for the feed but for the services of handling, storing, and delivering that feed.

There are three ways that you can save money on your Purina feed bill:

1. Haul it yourself right from the car and thus save the dealer expense of handling and delivery.

2. By paying cash for your feed you save the dealer bookkeeping, interest on credit. He can pass this saving on to you.

3. There is still another way to save on Purina. Buy your fall supply now and get a quantity price.

By saving these service charges, the dealer will be able to make you some real savings on your feed bill.

PURINA MILLS
854 Gratiot Street, St. Louis, Mo.

PURINA MILLS

For 36 Years Makers
POULTRY ... COWS
CALVES ... HOGS



of PURINA CHOWS
STEERS ... SHEEP
... HORSES ...

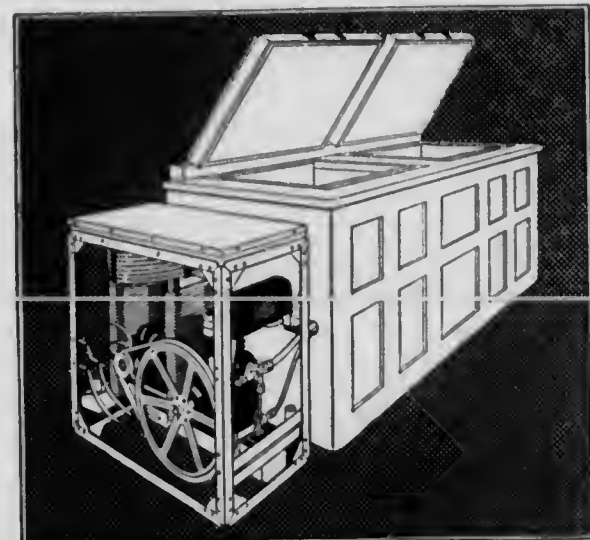
Philadelphia Inter-State Dairy Council

The various departments are at your service and will assist you in planning

EDUCATIONAL ENTERTAINMENT

for your Community, Local or Club Meetings. Lecturers, Speakers, Motion Pictures, Lantern Slides, etc.

R. W. BALDERSTON, Sec'y, 219 North Broad Street, PHILADELPHIA



Use Frigidaire in any approved tank type milk cooler on the local light or high line current. You can thus cool milk quicker, better and cheaper, and sell a higher grade and increase your profit.

FRIGIDAIRE MILK COOLERS

save hundreds of dollars

Do you realize that every day you are paying for Frigidaire equipment—paying for it without having it? Now it's time to let Frigidaire pay you.

In hundreds of dairies throughout the country, Frigidaire cools milk better and quicker, keeps its bacterial count remarkably low, brings higher prices. It stops spoilage and waste. It saves time, work...

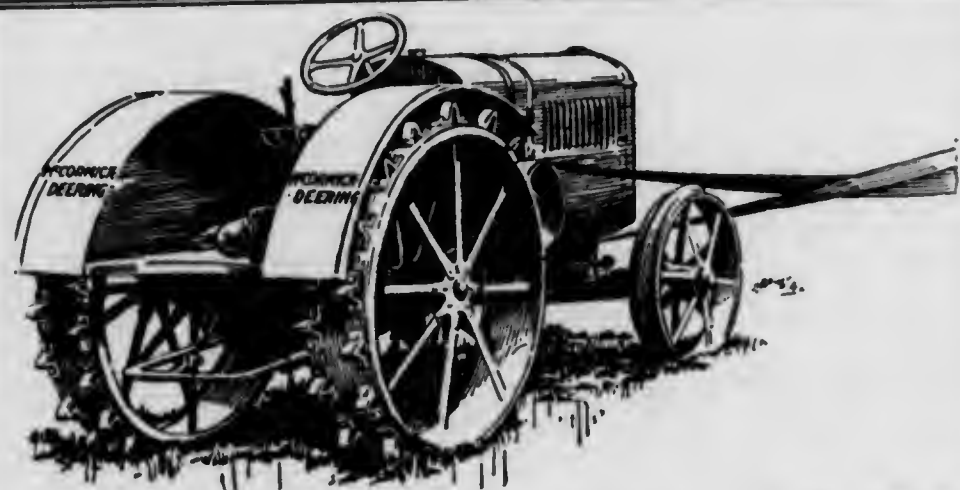
...and money. No matter what size dairy Frigidaire offers proportionately large savings. Frigidaire gives the assurance of de-

pendable performance afforded by more than 1,000,000 installations.

Can you afford not to read the entire story? Mail the coupon today! It involves no obligation whatsoever.

J. J. POCOCK, Inc.
Frigidaire Distributors
1920-22 Chestnut Street
Rittenhouse 7100

J. J. Pocock, Inc.
1920-22 Chestnut St., Philadelphia, Pa.
Show me how Frigidaire milk cooling equipment will make my dairy profitable. Send the facts at once.
Name _____
Address _____
Town _____ State _____



McCormick-Deering 10-20

To stand and look at the simple, compact McCormick-Deering 10-20 Tractor is to wonder how it can deliver so much rugged, heavy-duty power. To slip into the seat and give the McCormick-Deering a stiff try-out on a tough job is to quit wondering and sit back and enjoy everything you ever hoped to find in a tractor.

There are the best of mechanical reasons for this excellent performance. Foremost is the fact that the power plant is a 4-cylinder, heavy-duty engine of the most modern type. Of almost equal importance, are the high-tension magneto, oil air cleaner, Alemite-Zerk lubrication, and the many other items of equipment listed at the right.

Everything in the McCormick-Deering 10-20 tractor—from the original materials specifications to the last detail of equipment—com-

bines to produce the maximum of conveniently handled, long-lived power at the lowest possible cost per hour of operation. Ask us to demonstrate.

These McCormick-Deering Tractor Features Will Interest You

- One-piece main frame
- Removable cylinders
- High-tension magneto
- Impulse starter
- Hand brake
- Comfortable platform
- Ball and roller bearings
- Low center of gravity
- Protective fenders
- Low seat
- No projection parts
- Factory-sealed governor
- Adjustable drawbar
- Removable lugs
- Alemite-Zerk lubrication
- Gear oil pump
- Oil air cleaner
- Oil gauge
- Priming cups
- High skid rings
- Low steering wheel

The International Harvester Company

OF AMERICA

Philadelphia

Baltimore

Harrisburg

"Herd About Town"

Mr. Ralph Peters has resigned his position with the Quality Control Department of the Dairy Council effective October 15th, and has received an appointment as County Club Agent in Sussex County, New Jersey.

Announcement was made by Dr. A. M. Kelly, of the Scott-Powell Company to the effect that Snow Hill Receiving Station will be converted to a Grade "A" plant, effective January 1st, 1930.

The Dairy Council Play, "What's the Big Idea?" was presented to a group of enthusiastic dairymen of Worcester County, Md., Wednesday, October 2nd.

Coudersport Receiving Station, which is held as a reserve source of supply by Abbotts Dairies, Inc., began shipping milk to the New York Markets, October 1st. This plant was under Dairy Council inspection and meets New York Regulations. Only five dairies were lost in bringing this plant up to 100% in compliance with New York Regulations.

Tabulation of Production Records in five counties on the Eastern Shore of Maryland indicate that the production of milk per cow in these five counties have increased approximately 700 lbs. during the past four years.

Floyd R. Ealy, Quality Control Department, will address the "International Association of Milk Inspectors," at Memphis, Tennessee, on October 16th, on the "Use of the Direct Microscopic Count as a Means of Improving the Milk Supply."

Milk Drivers' Schools have been completed with the Johnstown Sanitary Dairies, Somerset Dairy Company, Gallicker Ice Cream Company in Johnstown and the Harshbarger Dairies in Altoona. The drivers of these companies are enthusiastic regarding the course offered in milk salesmanship by the Dairy Council. A Milk Drivers' School is now in operation at the Allentown Dairies, Allentown, Pa.

Supplee-Wills-Jones Milk Co. opened two new stations, October 1st. One located at Lewistown, Pa. Second at Martinsburg, W. Va. The latter plant was built largely to relieve the Hagers-town Maryland Plant. A large number of shippers from the latter plant have been transferred to Martinsburg.

The new plant of Wawa Dairies, located on the Baltimore Pike near Wawa, is rapidly nearing completion. The new plant will be modern and up-to-date in every detail. The milk supply of Wawa Dairies will continue to be bottled in the country and delivered to the city routes by motor trucks.

Mr. I. V. Otto, member of the Board of Directors of the Inter-State Milk Producers' Association, was the subject of a full page article in a recent edition of "Hoard's Dairymen," in which the statement was made that he was Pennsylvania's leading dairyman.

Scott-Powell Dairies are completing a new plant south of Dagsboro, Md. Upon its completion milk now being trucked from that section to Snow Hill will be delivered to the new plant. It is expected that the new plant will be completed by January 1st, 1930, at the latest.

Stanley J. Brownell, dairy extension specialist at Pennsylvania State College, has tendered his resignation and has accepted a similar position with Cornell University.

R. R. Welch, of the dairy extension staff at Pennsylvania State College, will take over Mr. Brownell's work in the Extension Department.

Montgomery County Holstein Bull Association

Continued from page 2

Burke Best. This sire is the youngest son of Spring Brook Best Burke 2nd, and carried 75 per cent of the same breeding of this noted cow who has three records of over 1000 pounds of butter, the highest of which is 1,290. These three sons are Winterthur Best Boast Gidel, Winterthur Best Boast Itherby and Winterthur Best Jo Segis Ithild. The first two of these bulls are out of daughters of Winterthur Best Ormsby Boast, who is a son of King of the Ormsby and Bess Johanna Ormsby. Bess Johanna Ormsby has 4 records of 1000 pounds of butter, three of which were made in the 305 day class and the fourth is a record of 1,497 pounds of butter made in 365 days. Two others of the association bulls are sons of Winterthur Best Ormsby Donsegis, who likewise is a son of that great foundation matron, Bess Johanna Ormsby, and by the sire, Sir Inka Prilly Segis, who is one of the great sons of King Segis. The mothers of these two bulls have records, one of which is 1,126 pounds of butter and the other with a record of 1,228 pounds of butter in a year. A sixth bull owned by the organization is by a son of Best from a 965 pound daughter of Sir Pieterje Ormsby Mercedes. The dam of this sixth bull is by a daughter of Jimma Riverside Boast Ormsby Dad, out of a 1,115 pound daughter of King of the Ormsby. The seventh bull is out of that great show cow, Belle Farm Bakker, and sired by Belle Farm Colantha Lad, a grandson of both Colantha Johanna Lad and Colantha Johanna Champion. The latter is a son of that great foundation cow, Colantha 4th Johanna, with a record of 1,247 pounds of butter in one year.

It is doubtful if any group of cooperative breeders in the United States can match pedigrees with these seven 1000 pound bulls whose records go back for three and four generations in the 1000 pound class.

Possibly the greatest reason for the outstanding success of this association is the splendid personnel of the organization. Mr. Chas. E. Wismer, Trappe, Pa., president of the organization since its beginning, has carried the association along on a very high standard of efficiency. The present secretary-treasurer of the association is Mr. A. K. Rothenberger, former County Agent of Montgomery County, who organized the association. Directors and members of the organization consist of leading men in Montgomery County: H. D. Allebach, Trappe, President of the Inter-state Milk Producers' Association; Wm. H. Landis, East Greenville; Leidy Kriebel and Allen Kriebel, both of Lansdale, R. D.; Elmer Detwiler, Rahns; Charles Kagey, Gratersford; J. L. Wood, Red Hill; Lawrence Rothenberger, Worcester, and Wilbur Patriquin, Red Hill.

Store Winter Vegetables

Despite the dry weather there will be many vegetables to store for winter use. There are different requirements for storage which should be observed; the vegetables are to keep well. Get a copy of Circular 120, The Family Vegetable Garden, from your county agent or from the Agricultural Publications Office, State College, Pa., for information on storage and other garden operations.

Good Drainage Needed

The summer drouth following the wet spring has revealed again the value of proper drainage. Where water stands in the soil, plant roots stay above the water line. When dry weather comes such roots are unable to get moisture because they have not penetrated deep enough to touch the soil reserve.

Delaware County Farmers Make Annual Tour

Under the leadership of Paul Willits, president and H. O. Wilcox, county agent, the Delaware County (Pa.) Extension Association held its annual county tour of inspection. The tour was made by automobile on September 12th, some twenty-five farmers participating.

Leaving Media in the morning the group visited the First Pennsylvania Egg Laying Contest at Springfield on the Baltimore Pike, near Swarthmore. Here the party inspected the pens and the methods of feeding. Some very interesting



F. P. Willits, Jr., holding 10 first size potatoes from one hill

records are being made by a number of the birds. The contest covers a period of one year and will close the present year on November 1st.

The group then proceeded to Penncrest Farm where under the direction of William P. Smedley, manager, the Guernsey Dairy and potato fields were inspected. Before leaving Penncrest Farm the group participated in a basket lunch.

Twin Ash Farm near Gradyville was the next farm visited. Here S. H. Smedley, Jr., explaining many of the details of their farm and fruit growing practices. Methods of the new deep tillage type of cultivation were explained. The various orchards were inspected as was also a new fruit storage house of 8000 bushels



Barn on farm of F. P. Willits & Son

capacity. This new storage house is built partly in the ground and has no artificial methods of refrigeration. Considerable interest was shown in a new ditch and lake, reclaiming some swampy land. The ditch and lake were constructed by the use of dynamite alone.

The last visit of the trip was made to the farm of Frank P. Willits and Son, near Concordville. Here the prospect looks good although not up to the high record of last year. The Guernsey herd at this farm also came in for a considerable share of attention. The visitors were much interested in the vigorous and permanent pastures which have kept the herd in a high state of productivity throughout the summer. Paul Willits personally conducted the party over the farm and explained the various cultivation programs.

The Coming Annual Meeting

Every individual member and every Local Unit of the Inter-State Milk Producers' Association should be interested in the coming Thirteenth Annual Meeting of the Inter-State Milk Producers Association, which will be held at the Benjamin Franklin Hotel in Philadelphia on November 19th and 20th, 1929.

See to it that your Local Unit holds a meeting and that it selects official delegates to represent the Local at this meeting. Under the amended by-laws, Locals are entitled to one delegate from every Local having from 25 to 100 members, and one extra delegate for each additional 100 members or fraction thereof. Such delegates attend the annual meeting at the expense of the association. These expenses include transportation to and from the meeting and an allowance of \$2.50 for one night's lodging for each delegate.

This meeting promises to be of exceptional importance to the entire membership. Important problems will be discussed and acted upon. There is an amendment proposed to the by-laws. This is outlined on page 1 of this issue of the Milk Producers' Review, an additional paragraph to our contract is also proposed. Reports of the years work of the association will be presented and the usual group of directors, to serve for three years will be nominated and elected.

In addition to the official delegates, every member will find it to his advantage to attend this meeting, to take part in the discussions and to participate in the business of the meeting.

Plans are under way to entertain the members of the families of the visiting delegates. The ladies entertainment committee is making plans for the entertainment of the visiting ladies, while the Philadelphia Inter-State Dairy Council is planning some interesting educational material to be presented at these meetings.

The annual banquet of the Association will be held at the Benjamin Franklin Hotel, on Tuesday evening, November 19th.

The program at the banquet needs no special announcement. It will however, be bigger and better in every way. There will be good food, good music and good entertainment. The Dairy Council will look after the entertainment features, so there will be no question about that. The Dairy Maids Chorus will present a new feature.

Every member who can possibly arrange to attend this annual meeting should endeavor to do so.

If you have never attended these meetings there is all the more reason why you should do so now. Become acquainted with the policies and programs of your organization. Meet the officers and active members of the operating forces of the organization. Learn what part they play in the associations operation and success and then go back home and tell the member, who could not arrange to be present, all about the development of your association and the dairy industry in general.

bushel class. This year, in spite of extremely dry weather, the prospect looks good although not up to the high record of last year.

The Guernsey herd at this farm also came in for a considerable share of attention. The visitors were much interested in the vigorous and permanent pastures which have kept the herd in a high state of productivity throughout the summer. Paul Willits personally conducted the party over the farm and explained the various cultivation programs.

NO. 10 OF A SERIES OF AMCO-FED HERDS



\$171.00 per cow—
a fair profit to expect



Bartley Farms Daisy Korndyke, milking 65.5 lbs. daily on Amco 32% Dairy mixed half and half with home-grown corn and oats.

MR. W. D. SNYDER of Hepburnville, Pa., was one of many Pennsylvania dairymen to use Amco 32% Supplement last year. His Cow Testing Association records show that the value of his milk, over total feed cost, was \$171.41 per cow, from 17 cows. Milking twice a day, his herd average was 9,437 lbs. milk and 313.1 lbs. butter fat.

Amco 32% Supplement is a profit-maker because it is a **true supplement**. Your home-grown corn and oats supply plenty of carbohydrates but not much protein. A true supplement is one that furnishes all the varied proteins your own grains lack, without waste or duplication of ingredients you already have. The high protein content makes it economical, because it goes a long way with your own grains.

College teachings form the basis of Amco 32% Supplement. The Open Formula, giving amounts, is a real aid in figuring how to cut down expenditure—it tells you exactly what you get, so you don't have to buy ingredients that you do not want or need.

Study the Open Formula tags at your nearest Authorized Amco Agent's. You will be taking a business-like step towards true economy.



Mr. Snyder's Snowball DeKol, a first year heifer that produced 9,174 lbs. of milk on Amco 32% Dairy.

AMERICAN MILLING COMPANY
EXECUTIVE OFFICES: - - - PEORIA, ILL.
DIVISION OFFICE: - - - MUNCY, PA.

AMCO
FEED MIXING SERVICE

Plants at: Peoria, Ill.; Omaha, Neb.; Owensboro, Ky.
Alfalfa Plants at: Powell, Garland, and Worland, Wyo.

Is Your MANURE PILE Leaking Dollars?



Manure stored in an open barnyard loses more than half its fertilizing value by seepage, according to tests made by the New Jersey Agricultural Experiment Station.

"At present prices of crops, manure has produced crop increases equal to about \$4.00 per ton of manure applied," reports the Purdue University Agricultural Experiment Station.

Use ALL of Your Manure Build a Concrete Manure Pit

A concrete manure pit saves enough fertilizer in one year to pay for itself.

Portland Cement Association

1315 Walnut St.
PHILADELPHIA

Please send me your free booklet on Concrete Manure Pits.

Name.....

St. Address (or R. F. D.).....

City.....

Feed Good Cows For More Money

Figures Show the Value of Plenty of Grain Feed for Fall Production

Records from dairy herd improvement associations show that grain fed to good cows makes money for the dairyman.

The average annual yield of milk for dairy cows in New York is 5500 pounds of milk. A group of cows with less than the average production, or 5261 pounds of milk, was fed on an average \$20 worth of grain, and \$35 worth of hay, silage, and pasture, or \$55 in all for feed. The average return in milk was \$146, \$91 more than all costs of feed.

In a group with an average production of 5500 pounds of milk, the value of the milk was \$168. The total feed cost was \$71, made up of \$30 for grain, and \$41 for roughage, and the net return was \$95. A group which produced, on an average 7771 pounds of milk, and fed \$50 worth of grain and \$44 worth of roughage, produced a gross return of \$213 against a feed cost of \$94, or a net return of \$119. Similarly, two other groups, producing about twice the stated average in pounds of milk, or 10,254 pounds and 11,937 pounds respectively, were fed \$85 and \$99 worth of grain, and \$42 and \$46 worth of roughage, with total feed costs of \$127 and \$145 as compared with milk values of \$280 and \$339 each, and net returns of \$153 and \$194.

Copies of the leaflet may be obtained free while the supply lasts by writing to the United States Department of Agriculture, Washington, D. C.

COW TESTING ASSOCIATIONS

Keystone Dairymen Test 19,541 Cows in Month

Dairy extension workers of the Pennsylvania State College announce that 58 associations tested 19,541 cows in August. The tests found 159 cows were not paying their board and these were sold.

Among the cows tested 1,776 produced more than 40 pounds of butter fat during the month and 2,510 gave more than 1000 pounds of milk. There were 510 cows which produced more than 50 pounds of fat and 1,211 which gave more than 1,200 pounds of milk.

Leading in number of cows tested was the Coventry association of Chester county with 548. The same association had the largest number of 40 pound cows, 78. Cumberland No. 1 association was second in the number of cows tested with 481 and also second in the number of 40 pound fat producers and 1000 pound milkers, 70 and 105 cows respectively attaining these marks. The White Deer Valley association of Lycoming county had 107 of the 1000 pound milkers, the highest of any group.

A registered Holstein owned by F. R. Cope, Jr., of the West Susquehanna No. 2 association, gave the largest quantity of milk, 2,655 pounds. The same herd supplied the leading butterfat producer with a yield of 105.6 pounds for the month. West Susquehanna No. 2 led in the 10 cow average for butter fat with 68.7 pounds. The runner-up in milk production was a purebred Holstein owned by H. H. Reigle, of the Buffalo Valley No. 1 association with 2,511 pounds. The second best mark in butter fat production was 86.9 pounds, made by a registered Holstein in the herd of William Bailor of the Clearfield association. The Garden Spot association of Lancaster county had the second highest 10 cow average in butter fat production 65.3 pounds.

Data From C. T. A., No. 1, Montgomery County

The Montgomery C. T. A. finished its fifth year, May 1, 1929, with 23 whole year members. There were 521 cows in the association during all or part of the year.

The registered Holstein herd belonging to Wm. H. Landis leads in both milk and butterfat with an average of 11,380 pounds of milk and 400.1 pounds of fat. The Shipley School Farm herd is second in production of butterfat with 391.0 pounds and 8,666 pounds of milk. The Levi Schultz Estate Holstein herd is second in production of milk with 10,364 pounds and 357.3 pounds of fat.

The association has finished a very successful year and every herd is tested for tuberculosis and 50% of the members are signed up for the abortion test.

The Results for the Five Years Testing Are As Follows:

YEAR	Ave. No. Cows	Lbs. Milk	Lbs. Butterfat
1925.....	331.65	7,563	281.2
1926.....	330.10	7,789	295.9
1927.....	319.10	7,991	305.3
1928.....	391.24	8,138	309.2
1929.....	431.01	7,981	313.6

The Results for Members Is As Follows:

Total Ave. No. of cows in the association.....	431.0
Ave. per cow—Lbs. of milk.....	7,981.6
Lbs. of butterfat.....	313.6
Percentage of butterfat.....	3.9
Value of product.....	\$ 317.23
Cost of roughage including pasture.....	59.13
Cost of grain.....	76.11
Total value of feed.....	135.24
Value of product above feed cost.....	181.99
Returns for \$1 expended for feed.....	2.35
Feed cost per 100 lbs. of milk.....	1.69
Feed cost per pound of butterfat.....	.43

Thirty-four cows produced over 400 pounds of butterfat during the year. A complete list follows:

OWNER'S NAME AND ADDRESS	COW'S NAME	BREED	LBS. MILK	LBS. FAT
Shipley School Farm.....	Caribou Rosalie.....	R.G.	15,369	777.6
Gladwyne.....	Skylla.....	R.G.	12,771	509.1
	Star.....	G.H.	11,780	456.0
	Rodancy.....	R.G.	8,736	422.8
	Rosalie.....	R.G.	9,106	406.8
Wm. H. Landis.....		R.H.	20,413	744.1
East Greenville.....		R.H.	12,068	435.4
		R.H.	11,300	434.8
		P.H.	10,728	401.7
		R.H.	14,559	578.5
J. L. Wood and Sons.....	Pauline.....	R.H.		
Red Hill.....				
C. Wm. Haywood.....	Buttercup 3rd.....	G.J.	9,366	516.7
Ambler.....				
Compton Farm.....	No. 44.....	R.J.	9,068	472.4
Chestnut Hill.....	59.....	R.J.	9,062	448.4
	66.....	R.J.	7,840	402.8
Ursinus College.....	2.....	R.H.	13,578	456.0
Collegeville.....	7.....	R.H.	13,698	448.9
	6.....	R.H.	13,313	407.7
Normandy Farms.....	33.....	G.G.	11,855	442.5
	8.....	G.H.	11,569	400.8
W. C. F. Randolph.....		R.J.	7,657	440.4
Royersford.....		R.J.	7,511	425.3
A. D. Hunsicker.....	Hannah.....	G.H.	14,204	431.5
Royersford.....	Blackie.....	G.H.	12,180	403.4
	Lady.....	G.H.	9,594	403.0
Camp Discharge Farm.....	May.....	R.G.	8,854	409.4
Conshohocken.....				
Wm. Pfommer.....	Beets.....	G.H.	11,111	413.6
Red Hill.....	Dutcheas.....	R.H.	11,461	402.6
Owen S. Gerhard.....	Jewel.....	P.H.	10,842	409.7
Palm.....				
Howard L. Baker.....	Cathaleen.....	R.H.	11,465	408.6
Center Square.....				
Levi Schultz Est.....	No. 22.....	R.H.	11,664	407.1
Palm.....	19.....	G.H.	12,267	405.5
Willow Creek Farm.....		R.G.	9,689	406.1
Penlyn.....		R.G.	8,685	403.8
H. D. Allebach and Son.....		R.H.	11,462	401.8

Pennsylvania Milk Show

Milk shows are a comparatively new departure in farm products shows and county fairs, for in but a few sections of the country have milk contests become a regular part of the fair program.

Pennsylvania is leading the way, however, for there are at present 12 state and county fairs or shows which have as a part of their program a separate and distinct contest for milk.

The State Farm Products Show is the largest in the state having at present about 200 entries, although the first milk contest recorded was in 1924 with only 37 entries. Every year since then the show has grown rapidly. In four years' time the number of entries has increased approximately 594 %, an unusually good indication of the interest aroused among dairy men. The shows have had the backing of the Farm Products Show committee in the way of prizes none of which have been over large and yet, since the inception of the show, always paying greater premiums than the agronomy and other exhibits and rightly so because of the extra care of preparing the exhibit samples.

A good indication of the worth of the show as judged by the show committee is the record of premiums paid. In 1924 five prizes were offered; the first prize drawing \$12.00; second prize \$10; third prize \$8; fourth \$6; and fifth \$4. Every year or so since that time the premium money has increased until, in 1928, ten prizes were offered. Because the contest covers the entire state and because the production of quality milk has become so wide spread and in certain sections commanded a premium price as market milk, the first prize for the best sample of milk exhibited at the show has become much coveted by Pennsylvania dairymen. Here is a contest in which every man has an equal chance. The quality of the milk he exhibits is a direct representation of the care he takes in handling that milk. In other lines of exhibiting, a criticism can often be made that there are professional showmen who make it very difficult for the amateur to win a prize, but with milk judging one farmer has as good a chance as the next. The principles which must be followed to produce a high quality milk are simple and inexpensive to follow. The most important point in preparing the sample is the thorough sterilization of all the equipment

which the milk is to come in contact with; the next point is that of cleanliness. The cow's udder and flanks must be washed clean and wiped dry, the air must be clean and free from dust and the equipment and the milker's hands must of course be clean, and the last point is that of proper cooling. The milk must be cooled as quickly as possible to ice water temperatures or at least to 50° F. and kept at that temperature until it is judged.

The milk is judged in Pennsylvania by a state employed specialist who judges the milk according to the following score card:

	Score
Bacteria.....	35
Flavor and odor.....	15
Sediment.....	10
Fat.....	15
Solids not fat.....	15
Temp. acidity.....	5
Bottle and cap.....	5

100

It can be seen that 60 out of the possible 100 points deal directly with sanitation and 70 of the points cover the handling of the milk, so it is very important that the exhibitor take care to observe the above principles.

Those who are directly interested in milk shows feel that there should be no other farm enterprise which should be better represented at county fairs and farm products shows than the production of milk. The production of milk in Pennsylvania has reached first place as a farm income enterprise. In 1928, the bureau of statistics has estimated the state of Pennsylvania produced 441, 270,000 gallons of milk valued at \$112,254,920. This enormous production shows an increase of approximately 7,370,000 gallons over the 1927 total, in spite of the fact that the cow population has not increased. With such statistics to convince us of the important part milk plays on the farm, the logic of introducing milk shows is acceptable to all.

Those who wish for further information regarding the Farm Products Show at Harrisburg, can obtain it by writing to D. H. Bailey, 58 Dairy Building, State College, Pa., or to the Farm Products Show committee at Harrisburg.

Packer Consent Decree

The public press, after a lapse of several years, is carrying many references to the so-called Packer Consent Decree, a term which is not very intelligible to the average reader. If you will recall today just what was the Packer Consent Decree and what it really did, this Decree entered into by agreement between the Government and the packers, put them under the jurisdiction of the Secretary of Agriculture and forbid their engaging in a number of lines of business, such as retailing their own products throughout the country or the manufacturing and dealing in other dairy products than those which they were manufacturing and selling at that time. The packers now ask for a modification of this decree, claiming that mergers in other business lines and the rapid enlargement of the Chain Stores business are putting them at a distinct disadvantage competitively.

The Executive Committee of the N. C. M. P. F. recently considered the proposal of the packers. As a result of their deliberations they sent an open letter to the Secretary of Agriculture, Arthur M. Hyde, from which we quote the following:

"The fundamental questions involved, however, are of far greater importance than the question of competitive advan-

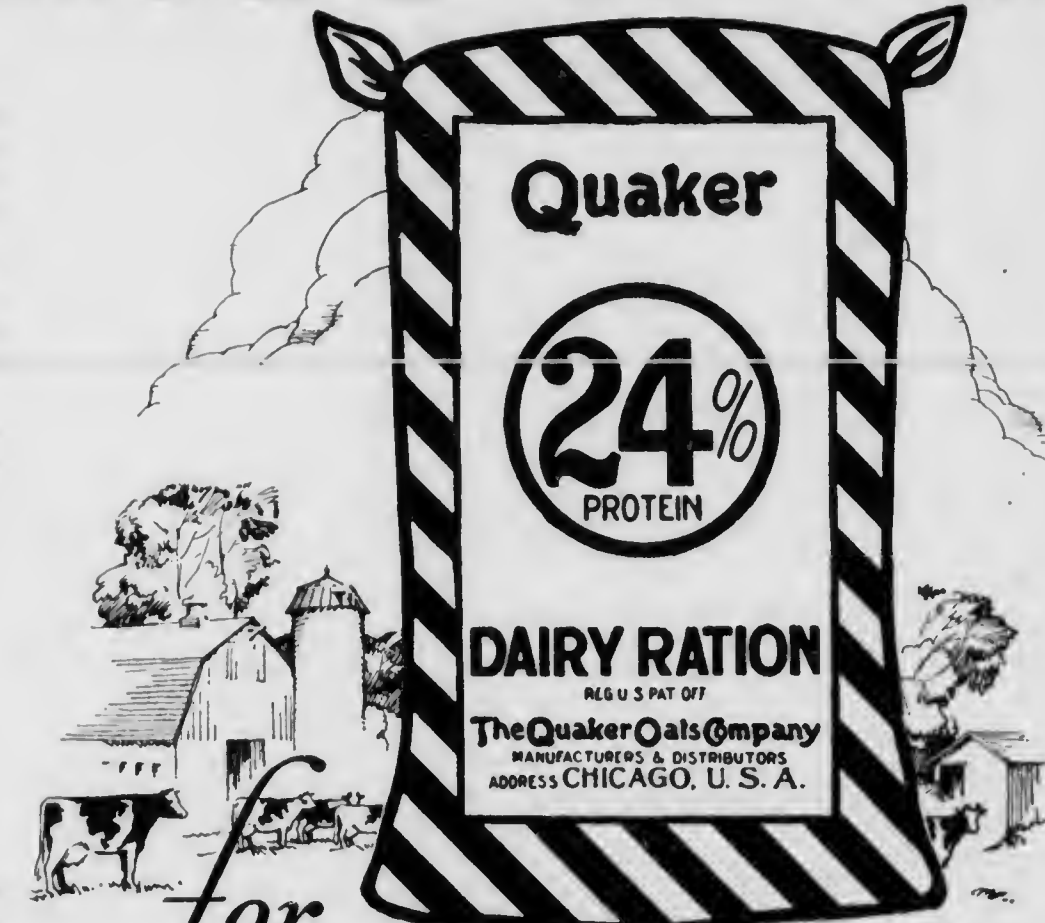
tage or disadvantage of rival business concerns. The interests of all the people require that commercial activities that are prejudicial to the public interest should be restrained, and by the same token that commercial activities that will promote public interests should be encouraged.

"This fundamental principle, all must concede, is sound. And the alleged changes in economic and business conditions since the entry of the Consent Decree should be considered in the light of this general principle.

"Again we state, that if some are permitted to follow these business practices then all should be permitted to follow them and that none should be permitted to do so if such practices are prejudicial to the public interest, while all should be encouraged if their activities promote public interest.

"Cooperative marketing associations are vitally interested in having the legal status of these large combinations clearly determined.

"If after complete investigation it is determined that the activities of these large and ever-growing business concerns promote the public good, then their operations should be made clearly lawful, and all necessary judicial and legislative action taken to this end.



Bigger Milk Profits All Winter

CONSIDER, right now, the advantages of getting your herd on a basis of maximum milk production which the cows will be able to maintain right through the winter. It will take good, common-sense feeding methods, and a good, common-sense feed to do it.

Quaker

24%
PROTEIN

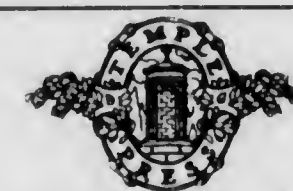
DAIRY RATION

is suited to your needs; it combines with your own grains, it blends with Quaker Sugared Schumacher; it puts within economic reach of every dairyman a most efficient mixture of proteins and minerals. Full directions with every sack. Now is the time to start.

THE QUAKER OATS COMPANY, CHICAGO, U. S. A.

Quaker Sugared Schumacher—is the complete carbohydrate feed; combines perfectly with any Quaker high protein concentrate (24%, 20% or 16%). A choice feed for all young or dry stock; an entire grain ration for horses, steers, lambs and swine.

BUY QUAKER FEEDS IN STRIPED SACKS



Let Us Design Your
Stationery
Horace F. Temple
Printer

Bell Phone No. 1
WEST CHESTER, PA.

High Grade Dairy Cows

in
HIGHTSTOWN, N. J.

We handle all kinds of cattle

Holsteins—Guernseys—Jerseys
A Specialty

All cows tuberculin tested and sold subject to a 60 or 90 day retest and fully guaranteed in every respect.

Free delivery any distance.

B. ZAITZ & SON

202 Mercer Street
Phone 72 Hightstown, N. J.

Mention Review when Answering Advertisers

Eastern States Farmers' Exchange

Succulence for the Barn-Fed Cow

Experiencing an unusually prolonged dry spell has brought many dairymen face to face with a vexing problem this fall. Pastures dried up earlier than usual. Some dairymen cut and fed green much of the forage crops that would have gone into hay and silage in an effort to curtail the dreaded slump in the fall supply of milk. And now fall springers coming fresh dairymen are confronted by a stinted supply of green forage and many will not have a full winter's supply of silage or other succulent feed. Every year there are a number of dairymen looking for some sort of feeding mixture or material that will provide their milking herd with an appetizing succulent roughage economically.

These men will be interested in this:

The Eastern States Farmers' Exchange, acting upon recommendations made by the college feed committee, has perfected **Eastern States Succulence**—a roughage feed that will absorb water to form a sweet, fresh and luscious succulent feed. For a long time the Exchange hesitated to offer such a feed on the contention that farmers ought to grow silage and green forage crops, improve their pastures or raise legume hay and saturate it with water and molasses instead of buying something to duplicate the feeding merits of these practices. The need for a succulent, however, persists. Beet pulp has been extensively used, but is varying in quality and expensive. Eastern States Succulence is a quality mixture composed of corn, molasses and ground alfalfa that is proving as satisfactory as beet pulp and costing several dollars less. Eastern States Succulence is not to be confused with any manufactured dairy grain ration—it is of high feeding value, but is to be used only as a water-carrying supplement to the dairy cow's ration. Write for a circular.

Eastern States Farmers' Exchange

A non-stock, non-profit organization, owned and controlled by the farmers it serves

HEADQUARTERS:
SPRINGFIELD, MASSACHUSETTS

National Cooperative Milk Producers' Federation to Meet in St. Paul, Minn.

The Thirteenth annual convention and meeting of the National Cooperative Milk Producers Federation, will be held this year, on November 11th, 12th and 13th, at St. Paul, Minnesota.

This gathering will represent a group of some 317,000 dairy farmers marketing dairy products valued approximately at \$340,000,000 annually.

Practically every important dairy marketing association in the dairy sections in the United States are affiliated with this Federation. The Inter-state Milk Producers Association has been a member of the Federation for many years and is represented among its actual officials by F. P. Willits, treasurer of the Federation and H. D. Allebach, a member of its Board of Directors.

About 600 delegates from member organizations are expected to attend this meeting.

The program will include addresses by national authorities and discussions of some of the pressing problems which are confronting the industry. These will include, among others, that of the tariff on dairy products and oils and fats; the relation to and the assistance which dairy cooperatives may expect from the Federal Farm Board; questions of membership relations and management, etc.

The National Cooperative Milk Producers' Federation is the oldest and largest trade association of cooperatives in the United States. It was formed in 1916, by eight fluid milk and cream marketing associations. One of its earliest members was the Twin City Milk Producers' Association of St. Paul, which with the Land O'Lakes Creameries, Inc., will entertain the visiting delegates. Headquarters will be at the Hotel St. Paul. The program also will include opportunity for inspection of the efficiently run plants and warehouses of the two associations.

Report of the Quality Control Department Philadelphia Inter-State Dairy Council

The following is a report of the work done by the Quality Control Department of the Dairy Council for the month of August, 1929.

No. Inspections Made.....	2,690
Sediment Tests.....	2,220
No. Permanent Permits Issued.....	154
No. Temporary Permits Issued.....	48
No. Meetings Held.....	13
Attendance.....	3241
Reels Movies Shown.....	22
No. Man Days.....	0
Fairs and Exhibits.....	
Bacteria Tests Made (Plants).....	53
No. Miles Traveled.....	20,719
During the month 17 dairies were discontinued from selling for failure to comply with the regulations—16 dairies were reinstated before the month was up.	
To date 142,781 farm inspections have been made.	

Produce the Best

Quality products bring prices high enough above the market quotation for ordinary products to make it profitable and economical to produce them. They also make satisfied customers and bring repeat orders.

Report of the Field and Test Department Inter-State Milk Producers' Association

The following statistics show the average operations of all the Inter-State Milk Producers' Association field men in connection with testing, weighing and general membership work, for the month of August, 1929.

No. Tests Made..... 7143

No. Plants Investigated..... 30

No. Membership Calls..... 277

No. Calls on Members..... 168

No. New Members Signed..... 70

No. Cows Signed..... 556

No. Transfers Made..... 14

No. Meetings Attended..... 6

No. Attending Meetings..... 915

National Dairy Show

Big Event at St. Louis Fair

This year's National Dairy Exposition to be held in connection with the St. Louis, Missouri Fair promises to exceed all previous events.

It will be housed in a new exhibit building and show ring, October 12th to 19th, inclusive and an elaborate showing of all the leading breeds of cattle is promised.

Special railroad excursion rates have been arranged. These vary in different localities—ask your railway agent for the special rate available from your territory.

One of the special features will be a gathering of the members of the Guild of Copatis. The annual banquet of the Copatis, open to dairymen who were on the 1928 Honor Roll and to state supervisors in charge of herd improvement work, will be held on Thursday, October 17th.

Many exhibits of interest to dairymen, in addition to the cattle show itself are promised and it is believed that those who make the trip will be well paid for their efforts.

Carlisle Local Holds Meeting

The Carlisle Local of the Inter-State Milk Producers' Association, held a meeting in the Court House, Carlisle, Pa., on September 10th.

Routine business was transacted after which the following officers were elected: President, Norman Stouffer, Carlisle; Vice President, William S. Ker, Carlisle; R. F. D. No. 9; Secretary-Treasurer, A. A. Raudabaugh, Carlisle, Pa.

Harvey Shugart was elected a delegate to attend the annual meeting of the Inter-State Milk Producers' Association.

Addresses were made by I. R. Zollers and E. C. Dunning, representatives of the Inter-State Milk Producers' Association.

Pennsylvania Active In Holstein Calf Club Work

Calf club work for the young folks is one of the leading projects promoted by the Holstein-Friesian Association of America in co-operation with the State associations and the state colleges of agriculture. Estimates furnished by the state club leaders show that there are more than 10,000 boys and girls on American Farms raising Holstein-Friesian heifers in calf club work.

In Pennsylvania and six adjacent states, this work is actively carried on, a total of 1470 Holstein calf club members in this section keeping in close touch with the National Association.



This Great Hotel Invites You!

The Benjamin Franklin

Philadelphia's Finest Hotel

1200 Rooms
1200 Baths

HORACE LELAND WIGGINS,
Managing Director

Keeps milking hose sanitary

NO FILM or stickiness remains in automatic milking machine hose lines when cleaned with Oakite. This vigorous acting, free-rinsing material clears out every trace of deposit and dirt without harm to rubber tubing. And, because a small amount of Oakite will do the job, with speed and thoroughness, the cost of keeping hose and connections clean is extremely low.

Our nearest Service Man can supply you with Oakite for this and many other dairy farm cleaning jobs. Write us and we will send him to you.

Oakite Service Men, Cleaning specialists are located in the leading industrial centers of U. S. and Canada.

Manufactured only by

OAKITE PRODUCTS, INC.
34 F. Thomas St., NEW YORK, N. Y.

OAKITE
Industrial Cleaning Materials and Methods

High Grade Guernsey and Holstein Dairy Cows

Car load lots a specialty

JOHN S. MATHIS, New Augusta, Ind.

Uncle Ab says one of the best investments on earth is a piece of the earth itself; the progressive farmer is coming into his own.

Real Compensation Insurance

Our policies furnish compensation protection as required by the Compensation Act and in case of accident pays benefits according to the Act.

We protect the employer, 24 hours in the day, regardless of when or where an accident might occur.

We paid a dividend for 1928 of 18%.

This Company made a gain of 30% in its premium writings for 1928.

This Company was organized by the sawmillmen, threshermen and farmers and is controlled by these interests.

WRITE for detailed information, as to costs, etc.

I am interested in having Casualty Insurance for my help and protection for myself, 24 hours in the day. I estimate my payroll

for the year at

Occupation.....

Name.....

Address.....

Pennsylvania Threshermen & Farmers' Mutual Casualty Insurance Company

311 Mechanics Trust Building, Harrisburg, Pa.

Clip and Groom Your Cows
Curing Stable Months
It Means **CLEANER**
and **BETTER MILK**

Clipped and Groomed Cows are clean and comfortable and keep dirt out of the milk pail. Clipping and Grooming improve the health of your live stock. Gillette Portable Electric Clipping and Grooming Machines Operate on the Light Circuit furnished by any Electric Power Co. or on any make of Farm Lighting Plant. PRICE LIST ON REQUEST

GILLETTE CLIPPING MACHINE CO.
129 West 31st St., Dept. 14, New York, N.Y.
40 Years Making Clipping and Grooming Machines Only

The Robert Morris

17th and ARCH STREETS
Rooms all outside and with bath. All beds equipped with box springs and Nachman inner hair spring mattresses.

RADIO IN EVERY ROOM
Single rooms.... \$3.00 \$3.50 \$4.00
Double rooms.... 4.50 5.00 6.00
LUNCHEON .60 and 75
DINNER \$1.00, \$1.15, \$1.50



100 Real Dairy Cows 100

For sale at all times. Tuberculin tested Holsteins, Guernseys and Jerseys. Real Milk Producers. Carload lots a specialty. Priced to sell.

See or Write.

JACOB ZLOTKIN
Phone 330 FREEHOLD, N. J.

CRUMB'S STANCHIONS

Chain Hanging
Also Water Bowls
Litter Carriers
Feed Carriers
Steel Stalls
Steel Partitions

Tell me what you are most interested in and I will SAVE YOU MONEY.

WALLACE B. CRUMB
Box 2, Forestville, Conn.

FOR SALE—"Select Dairy Aafalfa" for particular feeders. Delivered prices quoted. Prompt shipment.

JOHN DEVLIN HAY CO.
192 N. Clark Street Chicago, Ill.

19th CO-OPERATIVE PUBLIC SALE
65 BRADFORD COUNTY 65
REGISTERED HOLSTEINS
Thursday, Oct. 24th TROY, PA. Livestock Sale Pavilion
SALE STARTS PROMPTLY AT 12 O'CLOCK

43 Cows, Fresh or Due Soon—12 Yearlings and Heifer Calves—10 Bulls

All but a few head are fully Accredited. All are Tuberculin Tested and sold with a 60-day Re-test privilege. A number of entries have CTA records ranging up to 14,294 lbs. milk and 555.6 lbs. butter. Many are from dams with CTA records around 10,000 to 16,379 lbs. milk in a year. The cattle offered are well-bred animals. Many are sired by 1000 lb. sires. Many of the females are bred to 1000 lb. bulls. These cattle are consigned by 23 leading Holstein dairymen-breeders of Bradford County. These cattle have been inspected by the Sale Committee.

FOR CATALOG APPLY TO
R. H. FLEMING 315 Main Street, TOWANDA, PA.

Directors of Inter-State Milk Producers' Association, Inc.

Whose terms expire with the coming Annual Meeting of the Inter-State Milk Producers' Association, to be held in Philadelphia, Tuesday, November 19th, 1929.

F. P. Willits, Ward, Delaware Co., Pa.
Ira J. Book, Strasburg, Lancaster County, Pa.
H. D. Allebach, Trappe, Montgomery County, Pa.
E. H. Donovan, Smyrna, R. D., Kent County, Del.
Robert F. Brinton, West Chester, Chester County, Pa.
Albert Sarig, Bowers, Berks County, Pa.
S. Blaine Lehman, Chambersburg, R. D., Franklin County, Pa.
S. K. Andrews, Hurlock, Dorchester County, Md.

September Butter Prices

	92 Score, Solid Pack	Chicago
Philadelphia	New York	
3	45	43 1/2
4	46	44
5	46	45
6	46	44 1/2
7	46 1/2	45 1/2
8	46 1/2	44 1/2
9	47	44
10	47	44
11	46 1/2	45 1/2
12	46 1/2	45 1/2
13	47	46 1/2
14	47	45
15	47 1/2	46 1/2
16	47 1/2	45 1/2
17	47 1/2	45 1/2
18	47 1/2	45 1/2
19	47 1/2	46 1/2
20	48	47
21	48	46
22	48 1/2	47 1/2
23	48 1/2	46
24	48 1/2	45 1/2
25	48	47
26	48	47
27	48	47
28	48	47 1/2
29	48	47
30	48	45

EVERYTHING FOR THE DAIRY

AT
MARTIN C. RIBSAM & SONS CO.
143-5-7 East Front St., TRENTON, N. J.

Cattle Stanchions, Water Cups, Carriers installed if desired. Estimates given. Manure Spreaders, Fodder Cutters & Hammers. Feed Mixing Machines, \$33.00 to \$37.50; very handy machine to have.

De Laval Separator, Sanitary Milking Pails, Cans, etc. Farm Supplies in General; also Farm and Garden Seeds.

TRADE MARK **NICE** REG. U.S.A.

THE NAME TO GO BY—WHEN YOU GO TO BUY
PAINT AND VARNISHES
Write for Color Cards and Booklet "Paint Pointers"
EUGENE E. NICE COMPANY, Inc., PHILADELPHIA

COLD BLOC

Electric Refrigerated Milk Cooling Equipment
EFFICIENCY, ECONOMY, RELIABILITY, SIMPLICITY
DOMESTIC UTILITIES, 2117 N. Charles St., BALTIMORE, MD.

HOLSTEINS FOR PROFIT!
More Dollars per Cow per Year
Everywhere

There is always a ready market for Holsteins. They predominate in 30 states and comprise nearly 60% of all pure-bred dairy cattle in the United States. Wide distribution makes selection easy.

Estimate Service
The HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA
230 East Ohio Street, Chicago, Illinois

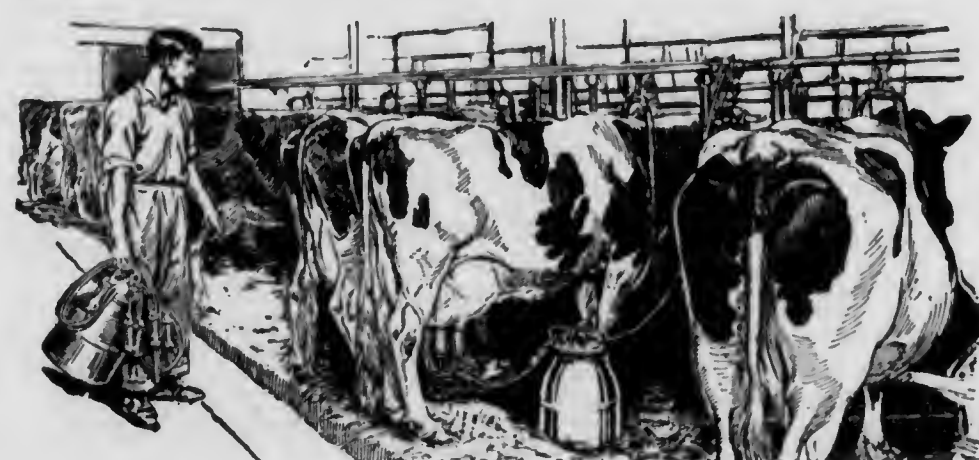
One Reason Why .. the .. De Laval Magnetic Milker .. Milks Better ..

THE simple, positive magnetic control of pulsations, which in less than a year has made the De Laval Magnetic the world's leading milker by a wide margin, is responsible in large part for the better milking which users praise so highly. No other method of milking is so uniform, regular or perfect. As a result the De Laval Magnetic Milker gets all the milk that a cow is capable of producing—and its action is agreeable to every cow in the herd.

In addition, the De Laval Magnetic has 14 other exclusive features which make it the world's best milker.

It has exclusive sanitary features which make it easy to maintain in a clean, sterile condition.

Convince yourself! You can try a De Laval Magnetic Milker in your own barn without obligation or expense on your part. Then you'll know! Simply fill out the coupon below and mail it to the De Laval office nearest you.



With the De Laval Users



He milks, separates and heats water all at the same time.

MR. JAMES P. GOSLEE, London, Minn., uses the De Laval Magnetic Milker, Alpha Dairy Power Plant and De Laval No. 17 Golden Series Separator. The illustration above shows how he uses these machines for the utmost convenience and efficiency. They enable him to do his work better, quicker and with greater ease, as well as saving him valuable time and labor. This trio of De Laval machines means added profit and great pleasure to every user.

The hot water heater, which is a built-in feature of the Alpha Dairy Power Plant, heats water for washing the separator and milker while it is operating them. Hence a supply of hot water is available for cleaning just as soon as the milking and separating is completed and at no extra cost.

Mr. Goslee says, "I would not want to milk cows any more without using a De Laval Magnetic. The Alpha Dairy Power Plant is a smooth-running engine with plenty of power and the water heater is as handy as the pocket on a shirt. The milk sure goes through the No. 17 Golden Series Separator in a hurry and it does the work thoroughly."

See for Yourself — Free Trial in Your Own Barn

THE DE LAVAL SEPARATOR CO., Dept. 9847
New York, N. Y., 165 Broadway
Chicago, Ill., 600 Jackson Blvd.
San Francisco, Calif., 61 Beale St.

Gentlemen: I would like to try the ☐ De Laval "Magnetic" Milker ☐ De Laval "Utility" Milker (check which) in my own barn, without putting myself under any obligation.

My name is.....

Address.....

No. of cows.....

☐ Check here if you wish literature only

The De Laval Separator Company

New York

165 Broadway

Chicago

600 Jackson Blvd.

San Francisco

61 Beale St.

Library Agr. Econ. & Farm Mgt.,
State College of Agri.,
Ithaca, N. Y.

8/28

SUPPLEMENT TO OCTOBER ISSUE

INTER-STATE

Milk Producers Review

ISSUED MONTHLY IN THE INTEREST OF THE DAIRY FARMER BY THE INTER-STATE MILK PRODUCERS ASSOCIATION, Inc.

Vol. X

West Chester, Pa., and Philadelphia, Pa., October, 1929

No. 6

SURPLUS PRICES

for

November and December

Your Established Basic Quantity will be used in calculating amounts due you until further notice.

The "Three Year Average"

will be used for establishing your Basic Quantity for

1930

SPECIAL CONFERENCE

A special conference was held at the office of the Inter-State Milk Producers' Association on Saturday morning, October 19, 1929. It was agreed that the present condition of the market demanded instant action. After carefully considering various arrangements which it was thought would correct present conditions, it was decided, first, that the basic and surplus plan should be put into effect for Nov. and Dec., 1929, and that the "all basic" arrangement announced in the

regular October issue of this paper, should be disregarded.

It was further decided that for 1930 the "three year average" as announced in the September issue of the Milk Producers' Review will be carried through for the determination of established basic quantities for that year. The only change in the selling plan from that announced on Page 3 of the September issue of the Milk Producers' Review, will be that new producers, instead of being

allowed 70% of their Oct., Nov. and Dec. production, will be allowed 80% of that production, for establishing the basic quantity for 1930. The revised selling plan is printed in this supplement.

The circumstances causing this drastic action are:—

1. Many farmers and dealers for the past two years have been demanding the chance for every shipper to make a new basic amount each autumn. We felt this year, under

INTER-STATE MILK PRODUCERS REVIEW

Official Organ of the
Inter-State Milk Producers' Association, Inc.
August A. Miller, Editor and
Business Manager
Frederick Shangle, Advertising Manager

Published Monthly by the Inter-State Milk
Producers' Association, Inc.

Business Office
Flint Building, 219 N. Broad St., Phila., Pa.
24 E. Market St., West Chester, Pa.

Editorial and Advertising Office
Flint Building, 219 N. Broad St., Phila., Pa.
Bell Phones, Locust 5391 Locust 5392
Keytone Phone, Race 5344

Printed by Horace F. Temple, Inc.
West Chester, Pa.

Subscription
50 cents a year in advance
Advertising rates on application

"Entered as second-class matter, June 3, 1920,
at the post office at West Chester, Pennsylvania
under the Act of March 3, 1879."

adverse climatic conditions, that it might be possible to allow the producer to establish a new "basic," because the farmers were short both of pasture and feed.

- After trying this plan out for one month we find that the average producer has increased his production to such a point that the market has gotten into a dangerous condition and unless something is done at once, there may be a price reduction. We believe this will be a greater disadvantage than putting all producers back on the regular "basic and surplus" plan.
- As we have studied these conditions, we feel that unless something is done, all of the roughage will be fed during these three months throughout our territory to increase the basic amount, and that, as a result, there will be quite a shortage of milk during February and March, 1930. This situation would likewise be harmful to our market.
- The "all basic" announcement has increased the price of cattle to such an extent that, if the present situation were allowed to continue, and the price of milk to break, it would ruin some of our farmers on account of the high prices they have paid for cows.

For these reasons we have taken the action this day as explained above.

Again, and very plainly, it has been demonstrated that the complete Philadelphia selling plan including some such arrangement as the "three year average" is the best method of successfully maintaining a healthy market condition at satisfactory prices in a fluid milk territory.

A. D. Allebach

President,
Inter-State Milk Producers' Assn.
Philadelphia, Pa.,
October 19, 1929.

INTER-STATE SELLING PLAN Effective November 1, 1929 INTER-STATE MILK PRODUCERS' ASSOCIATION, Inc. 219 N. Broad Street, Philadelphia, Pa.

Memorandum of Conference held October 19, 1929, revising memoranda of conferences held June 5, 1928 and August 28, 1929.
Milk will be sold in the following classifications:
Basic and Surplus Under Such Conditions as Are Herein After Defined.

ESTABLISHED BASIC QUANTITY

Producers shall receive each month, basic price for their "Established Basic Quantity," as hereinafter defined.

BASIC PRICE

The basic price will be established, as heretofore, by conference.

METHOD OF DETERMINING ESTABLISHED BASIC QUANTITY

The established basic quantity of each producer used during the first nine months of 1929 shall continue to be his established basic quantity during November and December, 1929. The following provisions shall apply in determining basic quantities under the Inter-State Selling Plan to be used during 1930.

OLD SHIPPERS

The basic quantity of each old producer to be used during 1930 shall be established by adding together the three following items and dividing the sum thereof by three:

- Established basic quantity used for 1928 payments.
- Established basic quantity used for 1929 payments.
- Average production made in October, November, and December, 1929.

EXCEPTION—The basic quantity of any producer starting to ship during October, November or December, 1927, shall be established by adding together the three following items and dividing the sum thereof by three:

- Average production made in October, November, and December, 1927.
- Established basic quantity used for 1929 payments.
- Average production made in October, November, and December, 1929.

OLD SHIPPERS WITHOUT 1928 BASIC QUANTITIES

The basic quantity for 1930 of any producer having no established basic quantity for 1928 payments, shall be determined by adding together the three following items and dividing the sum thereof by three:

- Established basic quantity for 1929 payments.
- Average production made in October, November, and December, 1928.
- Average production made in October, November, and December, 1929.

INITIAL TUBERCULIN TEST 1929

Any producer whose cows undergo an initial test for tuberculosis during the year 1929 may elect to have used as his established basic quantity during 1930 either, first, the basic quantity used during 1929, or second, the established basic quantity determined in accordance with the provision governing "old shippers."

NEW PRODUCERS FROM JANUARY 1, 1929 TO SEPTEMBER 30, 1929

Any producer starting to ship on or after January 1, 1929, establishing a basic quantity on a basis of 50% of the first thirty days' shipment or any other basic not above 70% of same, shall during November and December, 1929, receive basic price for 80% of his production in each of those two months. His established basic quantity for 1930 shall be 80% of the average daily production made in October, November and December, 1929.

NEW PRODUCERS AFTER OCTOBER 1, 1929 UNTIL DECEMBER 31, 1929

Any producer starting to ship on or after October 1, 1929, and prior to January 1, 1930, shall during November and December, 1929, receive basic price for 80% of his production in each of those two months. His established basic quantity for 1930 shall be 80% of the average daily production made in October, November and December, 1929, computed by taking the sum of his daily shipments dividing same by the number of days shipping and multiplying the quotient by thirty.

NEW PRODUCERS JANUARY 1, 1930 AND UNTIL FURTHER NOTICE

Any producer starting to ship after January 1, 1930, shall establish a basic quantity on a basis of 70% of his first thirty days' shipment.

SURPLUS QUANTITIES

Each producer is to receive the surplus price for that portion of his production in excess of his "Established Basic Quantity."

SURPLUS PRICE

The surplus price shall be established by the following method:

- Determine the average price of 92 score solid packed butter at New York City, by adding all daily quotations between the 28th of the previous month, the 27th of the current month and divide the sum by the number of quotations included.
- Multiply this average butter price by four and to this figure add 20% of the same. The result will be the price of first surplus milk of four per cent butterfat content at all receiving stations at railroad points. To determine the price of direct shipped surplus milk, add \$.5755 per hundred pounds to cover usual differentials for freight, receiving station charges, etc.

REMOVALS

In case of tenants changing from one farm to another, or farm owners selling out and purchasing a farm elsewhere, and who, by this procedure, change buyers of their milk, it is definitely understood that the basic quantity established goes with the cows.

SPECIAL CASES

Special cases where one or more producers change to new buyers are open to agreement between such producers, buyers and the Inter-State Milk Producers' Association.

A committee of two, one representing the producers and one representing the buyers, shall be charged with the duty of making the computations of the surplus price each month. They shall immediately announce the result of their computations to all parties concerned.

The usual butterfat differential of four cents for each one-tenth point, and two cents for each one-half-tenth point of butterfat, shall apply to surplus milk as well as to basic milk.

This memorandum covers all points in the territory. Any of the parties interested reserves the right to ask for a conference with respect thereto at any time.

Milk Produce

ISSUED MONTHLY IN THE INTEREST OF THE DAIRY FARMER BY THE

Vol. X

West Chester, Pa., and Philadelphia, Pa.

No. 7

National Dairy Exposition Makes Record Best in Many Years

From practically every angle the National Dairy Show of 1929, held in St. Louis, Missouri, October 12th to 19th inclusive, outstripped any of its predecessors.

Not only were the facilities of the new Arena exceptionally good but the number and character of the cattle exhibited far exceeded that of any previous year.

The new Arena, located on a piece of ground of 54 acres, is most adequately fitted for exhibition and demonstration purposes. The cost of the erection of the building was approximately \$2,000,000. The judg-

In addition to the National Dairy Exposition, there was a highly creditable exhibit of the St. Louis National Horse Show, the St. Louis Fair, a Poultry and Pet Stock Show and a Better Food Show.

Exhibits and contests by members of the Boys and Girls 4-H Clubs, Vocational High School Students, and agricultural College groups, presented a colorful demonstration of their activities. The aggregate attendance of these groups numbered upwards of 2000 and some of the judging contests were interesting and exciting.

Inter-State Milk Producers' Association 13th Annual Meeting

In every respect the coming annual meeting of the Inter-State Milk Producers' Association, will definitely be a meeting of the association membership. It will be represented by official delegates, duly elected by the various local units of the organization, as their spokesmen, to represent its membership directly at the various sessions and also by a large number of individual members who will attend the meetings as their individual representatives.

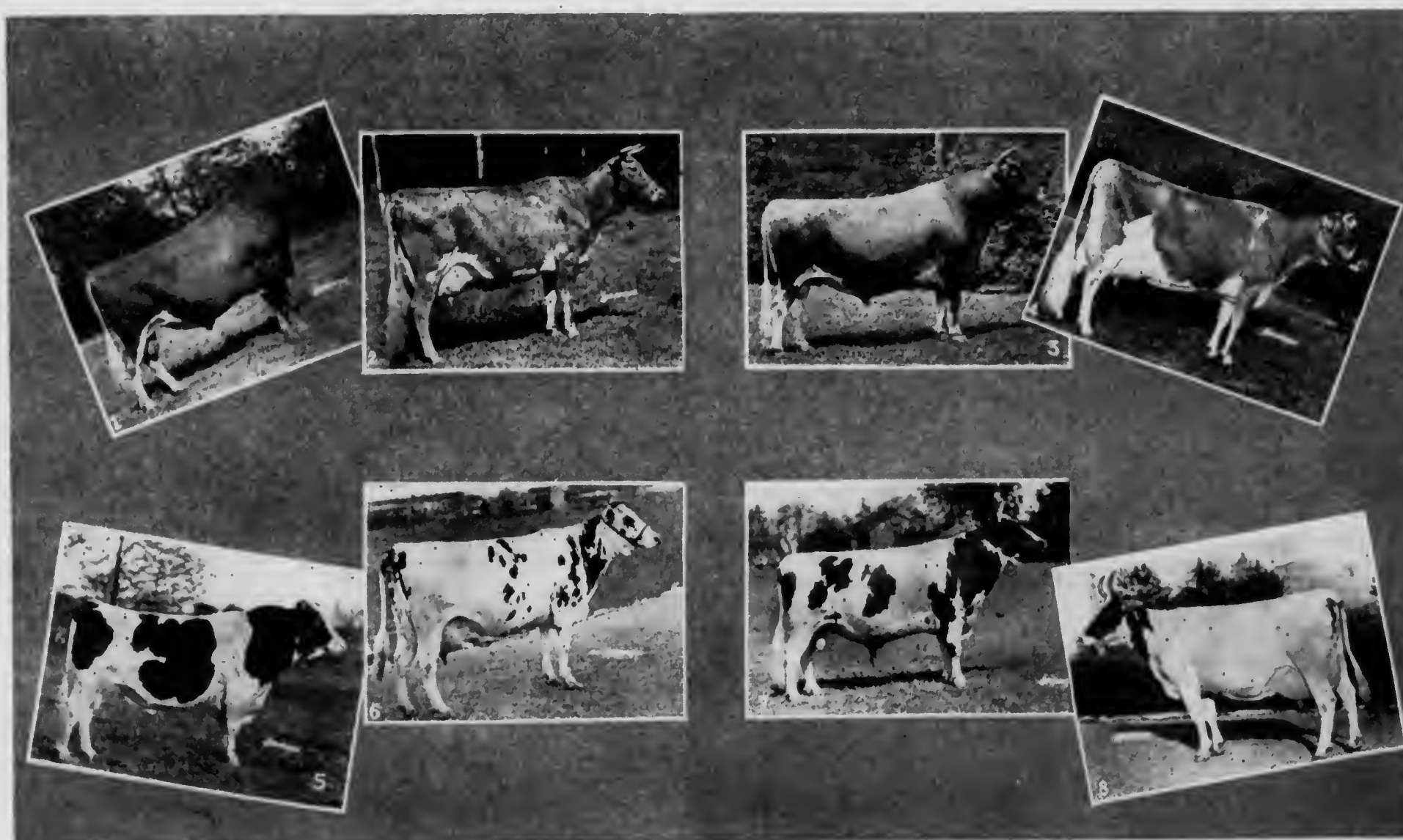
Under the new plan of membership

meeting on page 3.) reports of officers and department heads covering the years work, etc.

The afternoon session on the first day will be open to visiting farmers and dairymen. At this session the reports of President H. D. Allebach will be presented and marketing conditions discussed, addresses will also be made by Harry Hartke, president, The National Cooperative Milk Producers' Federation.

Ladies Program

During the morning session of the asso-



GRAND CHAMPIONS, NATIONAL DAIRY EXPOSITION, ST. LOUIS, MISSOURI, OCTOBER, 1929

(1) Border King of Roberts, Guernsey Bull, Glencliff Farms, Independence, Kansas; (2) Shuttlewick Levity, Guernsey Cow, Wm. H. Williams, Lyon, N. Y.; (3) Fern's Signal of Oaklands, Jersey Bull, Twin Oaks Farm, Morristown, N. J.; (4) Designs Oxford Pride, Jersey Cow, Twin Oaks Farm, Morristown, N. J.; (5) Sir Fobes Omsby Hengerfeld, Holstein Freisian Bull, Elmwood Farm, Deerfield, Ill.; (6) Johanna Pieterje Artis Creamelle, Holstein-Friesian Cow, Jefferson Co. Asylum, Jefferson, Wis.; (7) Alta Cr at Ringleader, Ayrshire Bull, Alta Crest Farms, Spencer, Mass.; (8) Iroquois Sally Winters, Ayrshire Cow, Lipplit Farm, Hope, R. I.

ing pavilion, 476 feet long and 276 feet wide, has a seating capacity of 21,000 and it was not unusual to find two thirds of the seats occupied by interested spectators during some of the judging contests.

The attendance at the show was remarkable, thirty thousand visitors were present on a number of days and in one particular instance the total reached 38,000.

In addition to the building housing the show ring, two buildings 300 by 288 feet, adjoined the main building on either side and made a most adequate place for the housing of cattle and for other exhibition purposes.

In these buildings were exhibited nearly 375 Holstein-Friesian cattle, upwards of 500 head of Jerseys, 293 Guernseys, 124 Ayrshires and 163 Brown Swiss cattle, a total of 1451. Twenty-six calves were born during the period of the show.

The Poultry and Pet Stock Show had an aggregate of 3000 birds and was particularly good.

No National Dairy Show is complete without some particular features. Here we saw exhibited two purebred Ayrshire cows, Tomboy and Alice which had walked 1200 milks, from Brandon, Vermont to St. Louis, Mo., to be at the show. They made the distance in 90 walking days. And they arrived, none the worse for wear, in excellent condition. And then we have almost the other extreme, that of a three months old Jersey calf which attended the show from Little Rock Ark., coming by airplane.

In addition to the livestock show there was a highly creditable exhibit of general dairy supplies, feeds and equipment. Many of these exhibits were located in the Arena, under the seat stands of the show ring. A

Continued on page 8

representation, the number of official delegates at this annual meeting is expected to be materially increased as one official delegate is now allowed for each 100 membership representation in the different local units. Such delegates attend the annual meeting, under prescribed regulations, at the expense of the association.

The annual meetings of the associations will be held in the Benjamin Franklin Hotel, 9th and Chestnut Streets, Philadelphia, Pa., on Tuesday and Wednesday, November 19th and 20th, 1929.

The first morning session will be called to order promptly at 10.00 o'clock. This session will be limited in attendance to members and delegates and invited guests. The session will largely confine itself to official business, the election of directors, proposed changes in the By-Laws (see special announcement in the call for the

meeting the visiting ladies of the members will be entertained at the offices of the association, 219 North Broad Street, Philadelphia. This meeting will be under the direction of the Ladies Entertainment Committee, Mrs. Robert F. Brinton, Chairman. It will be addressed by Dr. Clyde L. King, president of the Philadelphia Inter-State Dairy Council and by various members of the Philadelphia Inter-State Dairy Council, and by Miss Verna Elsinger, of the Ohio Farm Bureau Federation. "All in a Stew" will be presented by members of the Oxford Local of the "Inter-State".

The Annual Banquet

Benjamin Franklin Hotel, Tuesday evening, November 19th, at 6 o'clock P.M. sharp. Banquet tickets \$2.50 each.

Now that ought to be enough, but we might say that the plans this year are

Continued on page 9

Suggestions For the Improvement of Dairy Barns in the Southeastern Section of Pennsylvania

By M. G. BETTS, Architect, and M. A. R. KELLEY, Associate Engineer, Bureau of Public Roads
U. S. Department of Agriculture

In many of the larger centers of milk consumption, municipal authorities have set up quite rigid requirements that must be met by producers shipping milk into these communities. Such regulations prescribe clean, light, sanitary stables, clean utensils, clean healthy animals and careful handling by disease free labor as essential to a safe milk supply. A clean, wholesome water supply and proper disposal of sewage are also important factors in the safeguarding of public health.

In the area supplying milk to the Philadelphia District are a great many dairy barns that do not conform to the standards established in many states or to the requirements of the Philadelphia market. A large number of these were built years ago, be-

average of less than 100 days when the minimum temperature is below freezing, and zero temperatures seldom occur more than once or twice a year. However, the humidity is generally high and temperatures of 10 or 15 with 80 per cent relative humidity are quite common. The combination produces a raw penetrating atmospheric condition which causes discomfort and suffering among animals as well as human beings and makes, warm, comfortable shelter necessary for the dairy cow whose energy must be devoted to the production of milk.

Common Type of Barn

The type of old barn common to the region is the result of ideas and farming practices prevailing more than a hundred years ago at a time when building materials and labor were cheap and plentiful. Evidence of the prodigal use of material is found in the heavy stone walls, often two feet or more in thickness, and in the heavy timber framing.

The typical barn, known locally as the Swiss, Dutch, or Pennsylvania "overshot," because of the peculiar overhanging construction, was in its earliest form built as shown in Plate 1, A. The sills or beams supporting the overhang were hewn logs unsupported at the outer ends. As saw mills became more general heavy timber framing covered with boarding, as illustrated in Plate 1, B, was employed in the barn superstructure in place of stone masonry. Later the beams under the overhang were supported by girders resting on heavy stone or brick piers or on wood posts as in Plate 8, B. The interior view of a hay mow shown in Plate 2, A, (page 7) illustrates the heavy framing employed to support the roofs of these barns.

Most of these old barns were built into a hillside with one side of the lower story wholly or partly below ground level. These are known as "bank barns." In many instances the structure stands on gently sloping ground with a runway or bridge to the mow floor. The runway consists of an inclined fill of earth sometimes supported

storage of wagons and implements.

The practice is very uneconomical. With modern hay-handling equipment hay can be stored at less cost from the outside through gable end doors. A few square yards of tarpaulin thrown over a load of hay will protect it from rain. Not only is the tarpaulin a much cheaper protection, but by its use loaded wagons may be protected in the field. It may also be used as temporary covering for grain stacks, machinery and other property. The housing of wagons and machinery on the mow floor takes valuable floor and overhead space and is most inconvenient because of the lack of handling space. In case of a mow fire anything stored in the driveway is an assured loss, and without equipment, farming operations are seriously hampered. These considerations, together with the desirability of light and air on all sides of the stables, make the use of the so-called bank barn or that with a mow runway or bridge, generally inadvisable from the economic standpoint, unless the upper floor is to be used for the storage of other crops, such as tobacco, apples, or potatoes as is the case in some sections.

In most of these barns the stock is arranged in the lower story in rows at right angles to the bank wall, with alley doors opening into the space under the overshoot which serves as a covered passage between the feed and litter alleys. Stalls, mangers and stanchions of wood, often in bad condition and always difficult to keep clean are common. The multiplicity of wooden posts and rails even though white-washed, makes the stable dark and interferes with air circulation. The wooden box mangers cannot be kept clean and they provide harborage for rats and other vermin. Floors of dirt, stone or plank saturated with liquid manure and which cannot be kept clean, are frequently found. The dark, damp stables with walls and ceilings covered with cobwebs and dust are not conducive to health in the animals nor do they inspire those attending the stock to cleanliness and care in handling

and for this reason alone is very undesirable.

As old barns are destroyed by fire or storm they are often rebuilt on old foundations and in the old manner of framing. This is accounted for by a desire to save expensive foundation work and by the fact that local carpenters are unfamiliar with modern framing methods. Instances are known in which long, heavy timbers have been shipped from far western states for use in old-type framing when modern framing would have permitted the use of smaller and more readily available sizes of lumber. Analysis of old-type framing generally shows it to be wasteful of material. Floor beams 8 by 8 inches or 8 by 10 inches spaced 2 1/2 feet on centers were used when 2 by 10 or 12 inch joists spaced 2 feet on centers would carry the imposed load.



1-A An old stone barn with "overhang"

fore the necessity of cleanliness and health of milk cows was realized. In fact, many of them were built to house beef cattle rather than dairy cows and were converted to the latter use. Certain construction practices were developed and handed down so that even today new barns are built along the old lines which are not adapted to good milk production. The old type of barns are generally wasteful of space and materials. Poor arrangement and lack of modern time and labor saving equipment account for high operating and maintenance charges that seriously affect the farm profits. The most serious objection, from the structural standpoint, is the lack of light, ventilation and cleanliness which are necessary to the health of the stock. These old barns exist and are often in good condition. They must be used, for few owners can afford to abandon a substantial structure, representing a considerable investment, to build a new barn of approved type.

Purpose of Investigation

This bulletin is based upon a survey of the conditions under which milk is produced in southern Pennsylvania. It was made at the request of the Philadelphia Inter-State Dairy Council and in cooperation with the Council and the Department of Farm Machinery of the Pennsylvania State Agricultural College. The purpose of the investigation was to study these older dairy barns in southern Pennsylvania with a view to the making of recommendations for improvement in the conditions under which milk is produced in this area.

Prevailing Conditions

The area under consideration is entirely favorable to milk production. The growing season is longer, the winters are milder and there is less danger of drought, than in any other part of the State. The abundant rainfall and rolling character of the land account for many streams, green pastures and hay lands. These natural conditions together with the proximity of large market centers are important factors in successful dairying.

During the winter months there is an



1-B A timber framed barn with "overhang"

at the sides by heavy retaining walls. This driveway to the mow floor was a necessity when hay had to be unloaded with hand forks. It is still considered so by many farmers who have built new barns along the old lines but equipped with modern hay handling apparatus. The reason given is that two or three loads of hay can be run into the barn in case of a sudden rain. The mow drive space is also used for the

the milk, a factor which is absolutely essential to success in dairying.

Straw, for bedding, is generally stored in the overhanging part of the mow and is dropped to the ground below to be carried into the stalls. In some instances this straw storage is not a true overhang, but is attached to the barn proper. Any overhanging construction, whether supported by posts or not, makes the stables dark



8-B. Frame barn with 10 ft. "overhang" supported on posts, which is to be remodeled.

Large, heavy, solid timbers are used as girders when four or five pieces of 2 by 10 or 12 inch lumber may be spiked and bolted together to serve the same purpose. Heavy, solid, mortised and tenoned timbers are used in wall and roof framing when plank frame construction employing 2 inch lumber requires less material and can be erected with less labor in handling the individual pieces.

Very frequently heavy beams are placed with the lesser dimension vertical, an uneconomical practice originating with the use of tree trunks adzed on two sides to provide bearing surfaces. There is a simple rule that doubling the width of a given timber doubles the strength, but doubling the height increases the strength four times. A square timber is often used when one of less width but greater height and of less cross-sectional area would carry the same load. Thus an 8 by 12 inch beam with the 12 inch side vertical will carry 2 per cent more than a 10 by 10 inch beam, yet the former contains 4 per cent less material than the latter. If the beam were placed with the 8 inch side vertical it would support but three-fourths as much weight as the 10 by 10 inch beam.

The true "overshot" construction, that is, without posts or piers under the outer wall, makes very expensive storage for hay or straw. To support it heavy cantilever beams are required, an uneconomical form of support because of the size of the beams and the substantial anchorage that must be provided at their inner ends. Beams supported at the outer ends would require much less material and erection labor.

Little or nothing need be done by way of remodeling the superstructures of old barns, but in most instances the stables, while not susceptible of being ideal, can be better lighted, ventilated, rearranged

Continued on page 7

OFFICIAL NOTICE THIRTEENTH ANNUAL MEETING OF THE STOCKHOLDERS OF THE

Inter-State Milk Producers' Ass'n Tuesday and Wednesday, Nov. 19th and 20th, 1929

At the Benjamin Franklin Hotel
9th and Chestnut Streets, Philadelphia, Pa.

BUSINESS SESSION, TUESDAY, NOV. 19th at 10:00 A. M.

In accordance with the By-Laws, the Stockholders of the Inter-State Milk Producers' Association will meet at the Benjamin Franklin Hotel, 9th and Chestnut Streets, Philadelphia, Penna., Tuesday morning, November 19th, 1929, at 10:00 A.M., for the purpose of filling vacancies in the Board of Directors, Hearing Reports of Officers and for the transaction of such business as may be necessary.

H. D. ALLEBACH, President
R. W. BALDERSTON, Secretary

PROPOSED AMENDMENT TO THE BY-LAWS

It is proposed that Article 15 of the By-Laws be amended by the addition of the following paragraph:

"11. The Directors shall have power to sell shares of the capital stock of the corporation with such limitations and conditions as to voting rights and redemption of the said stock by the corporation, as the Directors, in their discretion, may determine; provided, however, that such limitations and conditions shall take effect only with respect to shares of stock held by persons who are not actually engaged in milk production."

PROPOSED ADDITION TO AGREEMENT WITH MEMBERS

"It is hereby expressly agreed that this Contract may be assigned by Inter-State Milk Producers' Association, Inc., to any Corporation or Co-operative Association organized under the laws of any State, for the purpose of taking over the assets and conducting the business now being conducted by said Inter-State Milk Producers' Association, Inc., and that this contract may be enforceable as to all the terms and conditions thereof by such assignee."

PROGRAM

10:00 A. M.—Election of Directors

Reports of Officers and Auditors

Report of Field and Test Department

2:00 P. M.—Address by the President, H. D. Allebach

Address—Harry Harke, Pres. National Coop. Milk Producers' Fed.

Address—Miss Verna Elsinger, Ohio Farm Bureau Federation

SPECIAL ENTERTAINMENT FOR THE VISITING LADIES

Tuesday, November 19th at 10:00 A. M. (See Page 10)

At Association Headquarters, Flint Building, 219 N. Broad Street, Philadelphia

ANNUAL BANQUET

BENJAMIN FRANKLIN HOTEL

NOVEMBER 19th, 1929, at 6:00 P. M.

13th Anniversary Program Special Entertainment New Dairy Council Plays

BANQUET TICKETS, \$2.50

WEDNESDAY, NOVEMBER 20th, 1929

8:00 A. M.—Visits to Local Milk and Ice Cream Plants
Visits to Offices of the Inter-State Milk Producers' Association and Philadelphia Inter-State Dairy Council.

10:30 A. M.—General Public Session.

ADDRESSES: HON. W. F. SCHILLING, Member Federal Farm Board

PROF. F. F. LININGER, Prof. of Agr. Economics, State College, Pa.

HON. THEODORE B. APPEL, M.D., Sec'y of Health, Commonwealth of Penna.

PROXY FOR STOCKHOLDERS INTER-STATE MILK PRODUCERS' ASSOCIATION

INCORPORATED 1917

REGISTERED

WITH

CORPORATION TRUST COMPANY OF AMERICA
WILMINGTON, DELAWARE

PROXY STOCKHOLDERS' MEETING

Know All Men by These Presents

That I, the undersigned, being the owner of _____ shares of the capital stock of the corporation above named, do hereby constitute and appoint

_____ day of _____, 1929

my true and lawful attorney in my name, place and stead, as my proxy, at the annual meeting of the stockholders of the said corporation to be held in the Benjamin Franklin Hotel, 9th & Chestnut Sts., Philadelphia, Pennsylvania, on Tuesday, the Nineteenth day of November, 1929, and on such other days as the meeting may be thereafter held by adjournment or otherwise, according to the number of votes I am now or may then be entitled to cast, hereby granting the said attorney full power and authority to act for me and in my name at the said meeting or meetings, in voting for directors of said corporation or otherwise, and in the transaction of such other business as may come before the meeting, as fully as I could do if personally present, with full power of substitution and revocation, hereby ratifying and confirming all that my said attorney or substitute may do in my place, name and stead.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this _____ day of _____, 1929

Witness: _____ (SEAL)

_____ (SEAL)

INTER-STATE MILK PRODUCERS REVIEW

Official Organ of the
Inter-State Milk Producers' Association, Inc.

August A. Miller, Editor and
Business Manager
Frederick Shangle, Advertising Manager

Published Monthly by the Inter-State Milk
Producers' Association, Inc.

Business Office
Flint Building, 219 N. Broad St., Phila., Pa.
235 E. Gay St., West Chester, Pa.

Editorial and Advertising Office
Flint Building, 219 N. Broad St., Phila., Pa.
Bell Phone, Locust 5391 Locust 5392
Keytone Phone, Race 5344

Printed by Horace F. Temple, Inc.
West Chester, Pa.

Subscription
50 cents a year in advance
Advertising rates on application

"Entered as second-class matter, June 3, 1920,
at the post office at West Chester, Pennsylvania
under the Act of March 3, 1879."



It will be to your interest to carefully read page 3 of this issue of the Milk Producers' Review and also the article on our coming annual meeting, on page 1 of this same issue, and then remember that this 13th annual meeting of your association is YOUR MEETING.

The officers of the association will tell you what they have done and what they hope to do, under your direction, in the future.

You should attend this annual meeting and take your part in formulating its policies and its program. The annual meetings of the association are the members own meetings and they should exercise that privilege by attending and taking part in its deliberations.

And at that, these meetings are not dull ones. A certain amount of amusement and relaxation is provided. The annual banquet presents a spirit of fraternity between buyer and seller. There will be healthful amusement of a novel nature. The Milk Maids Chorus will present its usual feature, and anyone who has seen this performance never misses another.

In fact these meetings throughout are not elaborate, but rather present the air of a solid business program by serious business people. Every milk producer is a business man himself and should give his aid and support in the furtherance of the organization of which he is a member, in its program for a fair and equitable market to every milk producer.

The special supplement of the October issue of the Milk Producers' Review was doubtless for the most part self-explanatory. Mr. Allebach in commenting in this issue of the Review on the necessity of continuing the three year basic and surplus plan stated in conclusion, "Again, and very plainly, it has been demonstrated that the complete Philadelphia selling plan including some such arrangement as of successfully maintaining a healthy market condition at satisfactory prices in a fluid milk territory."

It is a matter of disappointment that it was found necessary almost at the beginning of the 1929 basic period to again clamp the lid and make it impossible for producers to make new "basics." There are not a few producers who for one reason or another should have this opportunity this year; but the rapidity with which the supply increased during the first part of October had a very embarrassing effect on the market. The dealers were talking about reducing the price. They insisted on a conference. The best arrangement that could be made for the bulk of our

members was to agree to a return to the three year basic plan for November and December. It is to be hoped that this move will indicate to our producers the need of very carefully following the suggestions of the Association with respect to increase in production. Embarrassment is caused to the members generally when a well-earned and fair increase in price seems to excite the producers as to make the continuance of such price increase extremely difficult for the officers of the association.

These officers are to be commended for the promptness with which they acted to save the situation when the dealers faced them with a demand for a much more radical and less advantageous change in the price structure. Your officers are watching the situation very closely and making every effort to hold the recent price advance.

November Milk Prices

Inter-State Milk Producers' Association

Milk shipped to co-operating buyers during November, 1929, will be paid for on the basic and surplus plan.

The same basic average established by producers and effective earlier in the year, will be paid for at basic prices. Milk in excess of the basic quantity will be paid for at the surplus price, 92 score butter, solid pack, New York City, plus 20 per cent.

BANQUET SEAT RESERVATIONS

In order to avoid confusion regarding the seating of our members and guests at the Banquet to be held in connection with the annual meeting of the Inter-State Milk Producers' Association, at the Benjamin Franklin Hotel, Philadelphia, November 19th, 1929 at 6.00 o'clock sharp, the same system of seating as applied last year will be used.

Each banquet ticket carries a detachable stub, covering a request for seat reservation.

This stub must be returned to the home office of the association, together with the name and address of the purchaser, so as to be in the hands of the committee at the earliest possible moment and not later than November 16th, so that proper seats may be assigned.

On the day of the banquet, lists showing the arrangement of seats will be posted and distributed. No seats will be reserved however, after the banquet service has started.

Members of the association having banquet tickets for sale must return all unsold tickets on November 16th. After that date banquet tickets will be sold only at the Headquarters desk of the association at the Benjamin Franklin Hotel, and table assignments made in the order of sale.

Make your reservations at once so as to avoid confusion.

The Committee.

Market Conditions

H. D. ALLEBACH

As was briefly explained in a special supplement of the October issue of the Milk Producers' Review, which was mailed October 24th, the supply of milk in Philadelphia market rapidly increased after the first of October. While some of this increase was probably due to better pasture, it was very evident that our farmers generally were increasing their production through heavier feeding of concentrates, the earlier opening of silos or by the adding of additional cows.

In announcing the price increase September first, producers were warned not to attempt to take undue advantage of improved market conditions. Again, one month later in the October issue of the Review in the announcement that for the time being basic price would be paid for all milk, we again called attention to the importance of this matter. We said, "Many of our producers want a chance to make a new basic and some of the distributors felt that they should have this chance. However, we believe it is a dangerous one and is in your hands and up to you to make or break the market."

Notwithstanding these warnings, the supply of milk rapidly increased and by the latter part of the month had reached a stage where something had to be done to protect the market. Some buyers were demanding relief and a conference was called and the situation was fully discussed, and it was agreed that we return to the basic and surplus plan of payment for November and December. Such an arrangement will give producers who have not increased production over their basic a chance to get the full benefit of the recent price increase. Likewise, those producers who are not making more than 20 or 25% of surplus are receiving for their milk just as much as they would have selling all basic at the old price. It was pointed out that while the amount of fluid milk going into consumption channels continued about the same as heretofore, the market for dairy products, such as cream and butter was flooded with large supplies from all over the country. The market for cream was in a particularly unfavorable condition. We found that our distributors were all manufacturing considerable amounts of surplus. They said if they could buy this at surplus prices, it would protect our market and maintain the recent price advance. If they had to buy at basic prices it would necessitate reducing the price of all milk.

We hope with this arrangement to stabilize the situation at the recent price advance. From information which we have received from all over the country, it is evident that we are going into a period of quite high production of dairy products, nationally, and we therefore urge our producers to a continued care with respect to the importance of producing within the market needs in our territory.

October Milk Prices
Fluid milk prices under the Philadelphia Selling Plan, will be paid for by co-

operating dealers, for the month of October on the following basis:

Grade B Market Milk, three per cent butterfat content, f.o.b. Philadelphia, is quoted at \$3.54 per hundred pounds or 7.6 cents per quart.

Grade B Market Milk, three per cent butterfat content, delivered at receiving stations in the 51 to 60 mile zone, for October, is quoted at \$2.96 per hundred pounds. The usual butterfat differentials and freight rate variations, applying to other mileage zones in the territory are shown by quotation on Page 5 of this issue of THE MILK PRODUCERS' REVIEW.

The price of "A" milk under the usual butterfat variations and prices in the different mileage zones in the territory and at "A" stations for October are quoted on page 5 of this issue of THE MILK PRODUCERS' REVIEW.

Under recent agreements with buyers all milk shipped during the month of October is to be paid for at basic prices. This arrangement has been modified for the months of November and December when basic and surplus prices will again be paid.

Markets have been more or less unsteady throughout October. While there have been no extreme price ranges there has been some fractional variations from time to time. For one reason we have been passing through one of these unsettled periods. When production has shown no definite trend, another factor has been the extremely heavy storage stocks of not only butter, but other dairy products as well. These heavy stocks must be gradually worked into consumptive channels before the next season opens and when the storage stocks are heavy this situation causes considerable concern.

Prices of butter on the whole continued to run about two cents per pound below those of the same last period year and toward the close of October were the lowest for that particular period since the war, except in one year 1924, when a heavy full production had an unfavorable influence of the situation.

Storage stocks of butter in the United States on October 1st, aggregated 158,504,000 pounds, as compared to 128,071,000 pounds one year ago and a five year average of 133,695,000 pounds.

In so far as all milk bought by co-operating dealers under the Philadelphia Selling Plan during October, 1929, was bought at full basic prices, it is, never the less, interesting to note the trend of the butter market as it not only establishes, under our plan, the price of surplus milk but also has an extremely interesting bearing on the whole fluid milk price structure and particularly so when the extremely heavy storage stocks of butter are taken into consideration.

VISITS TO DEALERS' PLANTS

Plans have been made for members to visit various distribution and ice cream manufacturing plants on Wednesday morning, November 20th. These trips will be made under the direction of the Field and Test Department.

Register at the desk on Tuesday, select the plant you wish to visit, and obtain free bus transportation ticket.

LATEST MARKET PRICES

The basic price, quoted below for October, 1929, is to be paid by co-operating dealers at the full basic price. In other words, all milk delivered will be paid for by co-operating dealers at basic prices.

The following quotations are based on 3 per cent butterfat content milk and a differential of 4 cents for each tenth point and 2 cents for each half-tenth point, up or down, and are for all railroad points. (Inland stations carry differentials subject to local arrangements.)

PHILADELPHIA SELLING PLAN
INTER-STATE MILK PRODUCERS' ASSOCIATION PRICES
This price list is issued with the understanding that it is not to be used by the producers and that all buyers using it as a basis of payment to producers, shall in addition thereto make the following contributions and payments:
(1) To the Philadelphia Inter-State Dairy Council 2c per 100 pounds (46 1/2 quarts) of all milk purchased from any producer at prices listed hereon.
(2) To the Inter-State Milk Producers' Association 2c per 100 pounds (46 1/2 quarts) of all milk bought from members of said Association.
(3) To the Philadelphia Inter-State Dairy Council 2c per 100 pounds (46 1/2 quarts) of all milk bought from other producers at prices listed hereon.
The funds so derived are to be used by the recipients for improving standards of quality in production and distribution of milk in the Philadelphia Milk Shed, for improvements and stabilization of market and for an educational campaign advertising the local value of dairy products.

BASIC PRICE October, 1929		BASIC PRICE Country Receiving Stations October, 1929	
F. O. B. Philadelphia Grade B Market Milk	Price Per 100 lbs.	Quotations are at railroad points. Inland stations carry differentials subject to local arrange- ments. Prices are less freight and receiving station charges	Price 3% Milk
Test Per Cent.	100 lbs.	Freight Rates	3% Milk
3.0	\$3.54	11 to 20 incl.	2.83
3.05	3.56	21 to 30 "	3.03
3.1	3.58	31 to 40 "	3.13
3.15	3.60	41 to 50 "	3.23
3.2	3.62	51 to 60 "	3.33
3.25	3.64	61 to 70 "	3.43
3.3	3.66	71 to 80 "	3.53
3.35	3.68	81 to 90 "	3.63
3.4	3.70	91 to 100 "	3.73
3.45	3.72	101 to 110 "	3.83
3.5	3.74	111 to 120 "	3.93
3.55	3.76	121 to 130 "	4.03
3.6	3.78	131 to 140 "	4.13
3.65	3.80	141 to 150 "	4.23
3.7	3.82	151 to 160 "	4.33
3.75	3.84	161 to 170 "	4.43
3.8	3.86	171 to 180 "	4.53
3.85	3.88	181 to 190 "	4.63
3.9	3.90	191 to 200 "	4.73
3.95	3.92	201 to 210 "	4.83
4.0	3.94	211 to 220 "	4.93
4.05	3.96	221 to 230 "	5.03
4.1	3.98	231 to 240 "	5.13
4.15	4.00	241 to 250 "	5.23
4.2	4.02	251 to 260 "	5.33
4.25	4.04	261 to 270 "	5.43
4.3	4.06	271 to 280 "	5.53
4.35	4.08	281 to 290 "	5.63
4.4	4.10	291 to 300 "	5.73
4.45	4.12		
4.5	4.14		
4.55	4.16		
4.6	4.18		
4.65	4.20		
4.7	4.22		
4.75	4.24		
4.8	4.26		
4.85	4.28		
4.9	4.30		
4.95	4.32		
5	4.34		

When milk is not tested the price f. o. b. Philadelphia is 8 1/2 cents per quart.

MONTHLY SURPLUS PRICES 4% At All Receiving Stations	
1928	1929
January	2.43
February	2.21
March	2.35
April	2.17
May	2.13
June	2.09
July	2.12
August	2.20
September	2.11
October	2.11
November	2.11
December	2.11
1929	
January	2.26
February	2.36
March	2.31
April	2.15
May	2.15
June	2.06
July	2.00
August	2.05
September	2.17
October	2.17

MONTHLY BASIC PRICE OF GRADE B OR MARKET MILK 3 per cent butterfat content	
F. O. B. Phila.	Receiving station 50 mile zone per cwt.
1928	
January	3.29
February	3.29
March	3.29
April	3.29
May	3.29
June	3.29
July	3.29
August	3.29
September	3.29
October	3.29
1929	
January	3.29
February	3.29
March	3.41
April	3.41
May	3.41
June	3.29
July	3.29
August	3.29
September	3.54
October	3.54

Report of the Field and Test Department Inter-State Milk Producers' Association

The following statistics show the average operations of all the Inter-State Milk Producers' Association field men in connection with testing, weighing and general membership work, for the month of September, 1929.

No. Tests Made	6650
No. Plants Investigated	44
No. Membership Calls	189
No. Calls on Members	203
No. New Members Signed	54
No. Cows Signed	430
No. Transfers Made	13
No. Meetings Attended	13
No. Attending Meetings	837

Oct., 1929, Inter-State Prices at "A" Delivery Points

The price of "A" milk of any given butterfat content and bacteria count at any "A" milk delivery point may be ascertained by adding to the base price per 100 lbs. for 3.50% B.F. milk at that delivery point, as given in Table I, butterfat differentials and bacteria bonuses as indicated in Table 11.

Table I Base Prices at "A" Milk Delivery Points

NAME OF DELIVERY POINT	Delivery Point Location in Mileage Zone from Phila.	Minimum Butterfat Test Requirement in Effect at Delivery Point	Base Price of 3.50% Milk per 100 lbs.
Phila. Terminal Market		Per Cent	
47th and Lancaster	F.O.B.	4.00	\$3.74
31st and Chestnut	F.O.B.	4.00	3.74
Baldwin Dairies	F.O.B.	4.00	3.74
Breuninger-Dairies	F.O.B.	4.00	3.74
Other Terminal Markets			
Camden, N. J.	F.O.B.	4.00	3.74
Audubon, N. J.	F.O.B.	4.00	3.74
Norristown, Pa.	F. O. B. less 9 cts.	4.00	3.65
Wilmington, Del.	F. O. B. less 30 cts.	4.00	3.44
Bridgeton, N. J.	F. O. B. less 43 cts.	3.70	3.31
Receiving Stations			
Anasima, Pa.	41 50	3.60	3.17
Hedford, Pa.	261 270	3.80	2.93
Boyetown, Pa.	51 60	3.60	3.16
Byers, Pa.	41 50	3.60	3.17
Curryville, Pa.	261 270	3.50	2.93
Goshen, Pa.	51 60	3.50	3.04
Huntingdon, Pa.	201 210	3.70	2.99
Kelton, Pa.	51 60	3.50	3.16
Kimberton, Pa.	41 50	4.20	3.17
Landenberg, Pa.	51 60	3.60	3.17
Mercersburg, Pa.	181 190	3.80	3.00
Nassau, Del.	131 140	3.70	3.06
Oxford, Pa.	51 60	3.50	3.16
Palm, Pa.	51 60	3.60	3.16
Red Hill, Pa.	51 60	3.60	3.16
Ringoes, N. J.	31 40	4.20	3.19
Rushland, Pa.	41 50	4.20	3.17
Stockton, N. J.	41 50	4.20	3.17
Toughkenamon, Pa.	51 60	3.50	3.17
Waynesboro, Pa.	181 190	3.80	3.00
Williamsburg, Pa.	221 230	3.70	2.97
York, Pa.	31 40	3.60	3.19
Zieglerville, Pa.	41 50	3.60	3.17

1st Surplus Price..... F.O.B. Phila.
2nd Surplus Price..... F.O.B. Phila.
1st Surplus Price..... F.O.B. All Rec. Sta.
2nd Surplus Price..... F.O.B. All Rec. Sta.

No Surplus in October

* Based on Oxford, Pa., less 12 cents per 100 lbs.

Table II—Total B.F. and Bacteria Payments Above Base Price for "A" Milk

Butterfat Test Per Cent	Premium for Butterfat Content Above 3.50%		Total combined payment for Butterfat differential and bacteria bonus above base price per 100. lbs. for 3.50% B.F. milk.				
	If Bacteria Premium is Made	If Bacteria Premium is Not Made	CLASS OF BACTERIA REQUIREMENT (See note 1 for definition of each class of bacteria requirement)				
			I	II	III	IV	V
3.50	.00	.00	.40	.25	.25	.15	None
3.55	.01	.02	.43	.28	.28	.18	.02
3.60	.06	.04	.46	.31	.31	.21	.04
3.65	.09	.06	.49	.34	.34	.24	.06
3.70	.12	.08	.52	.37	.37	.27	.08
3.75	.15	.10	.55	.40	.40	.30	.10
3.80	.18	.12	.58	.43	.43	.33	.12
3.85	.21	.14	.61	.46	.46	.36	.14
3.90	.24	.16	.64	.49	.49	.39	.16
3.95	.27	.18	.67	.52	.52	.42	.18
4.00	.30	.20	.70	.55	.55	.45	.20
4.05	.33	.22	.73	.58	.58	.48	.22
4.10	.36	.24	.76	.61	.61	.51	.24
4.15	.39	.26	.79	.64	.64	.54	.26
4.20	.42	.28	.82	.67	.67	.57	.28
4.25	.45	.30	.85	.70	.70	.60	.30
4.30	.48	.32	.88	.73	.73	.63	.32
4.35	.51	.34	.91	.76	.76	.66	.34
4.40	.54	.36	.94	.79	.79	.69	.36
4.45	.57	.38	.97	.82	.82	.72	.38
4.50	.60	.40	1.00	.85	.85	.75	.40
4.55	.64	.42	1.04	.89	.89	.79	.42
4.60	.68	.44	1.08	.93	.93	.83	.44
4.65	.72	.46	1.12	.97	.97	.87	.46
4.70	.76	.48	1.16	1.01	1.01	.91	.48
4.75	.80	.50	1.20	1.05	1.05	.95	.50
4.80	.84	.52	1.24	1.09	1.09	.99	.52
4.85	.88	.54	1.28	1.13	1.13	1.03	.54
4.90	.92	.56	1.32	1.17	1.17	1.07	.56
4.95	.96	.58	1.36	1.21	1.21	1.11	.58
5.00	1.00	.60	1.40	1.25	1.25	1.15	.60
5.05	1.04	.62	1.44	1.29	1.29	1.19	.62
5.10	1.08	.64	1.48	1.33	1.33	1.23	.64
5.15	1.12	.66	1.52	1.37	1.37	1.27	.66
5.20	1.16	.68	1.56	1.41	1.41	1.31	.68
5.25	1.20	.70	1.60	1.45	1.45	1.35	.70
5.30	1.24	.72	1.64	1.49	1.49	1.39	.72
5.35	1.28	.74	1.68	1.53	1.53	1.43	.74
5.40	1.32	.76	1.72	1.57	1.57	1.47	.76
5.45	1.36	.78	1.76	1.61	1.61	1.51	.78
5.50	1.40	.80	1.80	1.65	1.65	1.55	.80
5.55	1.44	.82	1.84	1.69	1.69	1.59	.82
5.60	1.46	.84	1.88	1.73	1.73	1.63	.84
5.65	1.52	.86	1.92	1.77	1.77	1.67	.86
5.70	1.56	.88	1.96	1.81	1.81	1.71	.88
5.75	1.60	.90	2.00	1.85	1.85	1.75	.90
5.80	1.64	.92	2.04	1.89	1.89	1.79	.92
5.85	1.68	.94	2.08	1.93	1.93	1.83	.94
5.90	1.72	.96	2.12	1.97	1.97	1.87	.96
5.95	1.76	.98	2.16	2.01	2.01	1.91	.98
6.00	1.80	1.00	2.20	2.05	2.05	1.95	1.00

"Grading Up Results In 50-50"

In reply to the criticism of one author that the dairy breeds have not improved their production with the present system of selective breeding, Professor W. W. Yapp of the Illinois College of Agriculture asserts that investigators of genetics (breeding origin) during the past 20 years have formulated basic principles and made specific discoveries which can now be applied and which when followed can increase breed averages as a whole through selection.

Speaking to more than 300 breeders of purebred Holstein-Friesian cattle at the Illinois State Association meeting on July 20, he asserted that breeding tests with Holsteins and other dairy animals at the University of Illinois and in Wisconsin, Maine and Denmark show that herds can be readily graded up for milk production, for fat percentages, for solids such as ash or protein, or for color of milk by keeping to the newly established breeding principles.

Grading up is a 50-50 proposition in many respects, he finds. True, some animals do not pass on their good production qualities to their young but by mating those that do, the production in the long run will be half way between that of the parents.

For milk production, a bull with the ability to transmit the 20,000 pounds a year quality mated to cows with the ability to transmit 10,000 pounds a year quality will produce mostly animals that will approximate 15,000 pounds of milk a year.

For percentage of butterfat, a 4% bull mated to 3% cows will tend to produce animals that will average 3½% butterfat in milk.

For color of milk, as shown by color tests at the Illinois College of Agriculture, a sire from a white-milk family mated to dams from a yellow-milk family will tend to produce animals with milk that is half way between. An interesting side light on this color of milk is the discovery that it is not the amount of yellow in the milk that determines the color, but that it is the

amount of green. When there is an abundance of green in the milk, the milk appears white. When most of the green is lacking, the milk appears yellow. The green tends to mask off the yellow color so that its abundance or scarcity tends to determine the milk color.

At one time, an occasional red-and-white calf was dropped in purebred black-and-white Holstein herds although such calves are now rare. This harks back, explained Professor Yapp, to the early Holland herds, where most of the cattle were red-and-white. Crossing with black-and-white animals concealed this red and white characteristic in the young stock. If such young animals were bred to black-and-white individuals that did not carry this hidden red-and-white color marking, their calves would also be black-and-white. When two black-and-white animals that carry this hidden red-and-white characteristic are mated together, however, one out of every four calves is likely to be red-and-white and, when mated to other red-and-white Holsteins, will produce only red-and-white calves. This was sometimes the cause of legal disputes in regard to the sale of animals until the study of genetics showed that both parents were equally responsible.

The breeding studies have been continued at the Illinois College of Agriculture since 1919 with a herd of mixed breeding. It was purchased entirely from the widow of a man named Bowler of Farmington, Mass., who began cross breeding experiments in 1911 with a view to producing cows with the enormous milk flow of the Holstein and with the high percentage of butterfat of the lighter breeds. It is from the study of this herd and from the studies of other investigators that these basic principles have been formulated. According to Professor Yapp, only the fundamentals of breeding have been learned to date, but the studies show that the fat percentage, milk production and the percentage protein and ash are also on the 50-50 basis.

Top Dressing Wheat

The corn is in the crib. Hogs are growing fat. The cows have a good supply of fodder ready to be shredded as needed. The frosty mornings are with us. And the tender wheat plants shiver at the prospects of approaching winter.

There is no better time than now to clean up the feed lot, barnyard and stables before winter is upon us. The stables, hog pen and poultry houses all contain valuable manure which should be placed where it will do the most good. Clean surroundings are always an incentive to better health and greater profits.

Top dressing of wheat has many advantages: First, it helps to prevent winter killing of freezing out by protecting the wheat from severely cold winds; by holding the snow and by preventing soil blowing away where exposed to high winds. Secondly, top dressing supplies nitrogen, phosphoric acid and potash to the root system when the wheat stalks are practically dormant, thus storing up nourishment for the early spring when tillering or stooling out should be stimulated. Third, top dressing of wheat helps to prevent heaving and lifting of plants out of the ground during the alternate freezing and thawing of the ground. This is more noticeable with the legumes since they have a tap root but wheat is often seriously affected and the amount of damage done is often not realized until harvest time when there appears to be too few heads on what was seemingly a good stand

of wheat. Top dressing not only supplies humus but helps to maintain a friable soil absorbing more moisture from the winter's rains and snow and maintaining that moisture for the time most needed during the growing season.

Top dressing brings greater results when manure is applied in an even, light coating, reaching every drill row with no bunching whatever. Manure has its greatest nutritive value when applied direct from the stable. All long straw corn stalks and coarse material should be, thoroughly shredded and evenly applied in quantities not exceeding eight loads per acre. The spreader must do a thoroughly clean job of spreading, without bunching choking or otherwise producing an uneven application. Some spreaders have been proven to produce by far the best results because of special features applicable for this work. By virtue of their construction, the beaters must deliver a uniformly regular feed, therefore the most even spread and highest value obtainable.

Another and stronger residual effect of top dressing is the uniformly increased growth of grass when wheat is to be followed by hay or pasture in the farm rotation. It should be remembered that lime in any form, ground lime stone, gypsum or even wood ashes should not be applied directly with the manure or at nearly the same time, as the alkali content will liberate the ammonia contained in the manure.

Montgomery County Dairy Tour

A tour of Montgomery County dairymen was held Saturday, August 17th. The tour assembled at the Wm. H. Landis farm, East Greenville, where a large herd of Holsteins was seen.

The dairymen were interested in seeing Greenhill Bellwood Hengerveld, a registered Holstein that has been the leading animal in Pennsylvania cow testing associations for the last five years. This animal has a total production in the five years of 29,217 pounds of milk and 3,602.6 pounds of fat. The Landis herd made good milk records. The herd has been enrolled in the Montgomery County cow testing association for five years and during the last year it averaged 11,380 pounds of milk and 400.1 pounds of butterfat.

The second stop was at the Levi Schultz estate, near Palm, where a herd of 35 registered Holsteins was seen. This farm has 50 acres of blue grass pasture. The Schultz estate herd has made good records during the five years enrolled in a cow testing association. The herd average milk production for last year was 10,364 pounds of milk and 357 pounds of butterfat. A modern bull pen on this farm attracted the attention of the visitors.

The J. L. Wood Holstein herd of Red Hill was the next visited when the visitors observed a carload of Wisconsin Holstein cattle purchased by the owner. This herd is operating under the plan for eradication of tuberculosis and infectious abortion. The Wood herd has been enrolled four years in the county cow testing association and during the last year the herd average 8,490 pounds of milk and 301 pounds of butterfat. The dairymen were interested in seeing one of the bull association sires on this farm. This bull was purchased from the Winterthur Holstein farms and has a long line of ancestry that have made outstanding milk and butterfat records.

The Guernsey herd of Isaiah A. Cassel, Harleyville, was included in the tour. This herd has made consistent winnings on the show circuit and has captured blue ribbons at some of the large fairs, including

Allentown, Pa., and Trenton, N. J. A large number of the cows in this herd are under the official test.

The Holstein herd of Leidy Kriebel, Lansdale, was one of the dairies visited. Most of the animals in this herd are offsprings from bull association sires. Winterthur Best Boast Itherby, a son of a thousand pound dam was seen at this place.

The Holstein herd of A. K. Rothenberger, Center Point, was also inspected. This herd has been enrolled in a county cow testing association for five years. The last year in the association from the standpoint of milk and butterfat showed a herd average of 10,877 pounds of milk and 375 pounds of butterfat. The herd sire on the farm is owned by the bull association members and is one of the best bred bulls in the breed. The sire is Winterthur Best Boast Gidel and is a grandson of the King of the Ormsby's.

At the Elmer Detwiler farm near Rahns, the visitors saw a herd that had been raised by the owner. Most of the animals are a get of bull association sires.

The C. E. Wismer herd at Trappe, containing about 70 registered Holsteins was observed. The sire at this place is owned by the bull association and is a son of Bell Farm Backer, a cow that produced over a thousand pounds of butterfat at four years of age. This herd has a cow testing record of 8,796 pounds of milk and 294 pounds of butterfat.

The registered Holstein herd of H. D. Allebach, near Trappe, contains animals that were raised on the farm. This herd is free from tuberculosis and infectious abortion. The herd sire is Winterthur Best Jo Segis Ithild, whose dam has over 1100 pounds of butter as an official yearly test. This herd has been enrolled five years in a Montgomery County cow testing association and has a record of 9,231 pounds of milk and 329 pounds of butterfat.

The last herd visited was the Jersey herd of W. C. Randolph near Royersford. This herd last year produced an average of 6,637 pounds of milk and 354 pounds of fat.

Economic Benefits Follow T.B. Eradication

In addition to the safeguarding of health and the economic benefits reflected in official records of animals passing through the public stockyards of the country, Dr. A. E. Wright, chief of the tuberculosis eradication activities of the United States Department of Agriculture, in an address before the Eastern States Tuberculosis Conference at Springfield, Mass., (June 19) listed ten economic advantages from tuberculosis eradication often mentioned by livestock owners and State and officials interested in their work. These benefits are:

1. Tuberculosis eradication aids in sale of purebred cattle.
2. Cast-off dairy animals bring better prices.
3. Losses by death due to tuberculosis stop after herds are placed under test.
4. Area eradication work promotes the sale of surplus cattle.
5. Area eradication work fosters better dairy husbandry.
6. Farmers in the Corn Belt and adjoining States receive large premiums from swine from modified areas.
7. The eradication work helps to establish better markets for milk.
8. The systematic way in which the work is conducted attracts the interests of bankers and others interested in the cattle industry.
9. The inter-state movement of officially tested cattle is facilitated.

10. Testing of cattle promotes control and eradication of avian tuberculosis.

Cattle infected with tuberculosis reaching the public abattoirs decreased from more than 2 per cent in 1917 to 1 per cent in 1928. Tuberculosis swine are also decreasing.

"These and other reasons indicate," said Dr. Wright, "that tuberculosis eradication, conducted under the systematic plan, is a paying venture and well worth the money and effort put into it."

Dr. Wright congratulated Maine on being the second State in the United States and the first in New England to achieve the status of having all counties modified accredited area, with 100 per cent of cattle under supervision. New Hampshire has more than 55 per cent under supervision, Vermont more than 53 per cent, and Connecticut nearly 47 per cent. Massachusetts with about 24 per cent and Rhode Island with more than 20 per cent complete the roll of New England.

Dr. Wright commented on a reduction in the number of accredited herds in the country, and explained that this was the result of the rapidly expanding modified accredited areas. Dr. Wright, however, recommends general continuation of annual testing of outstanding herds under the accredited herd plan.

Suggestions for the Improvement of Dairy Barns in Southern Pennsylvania*

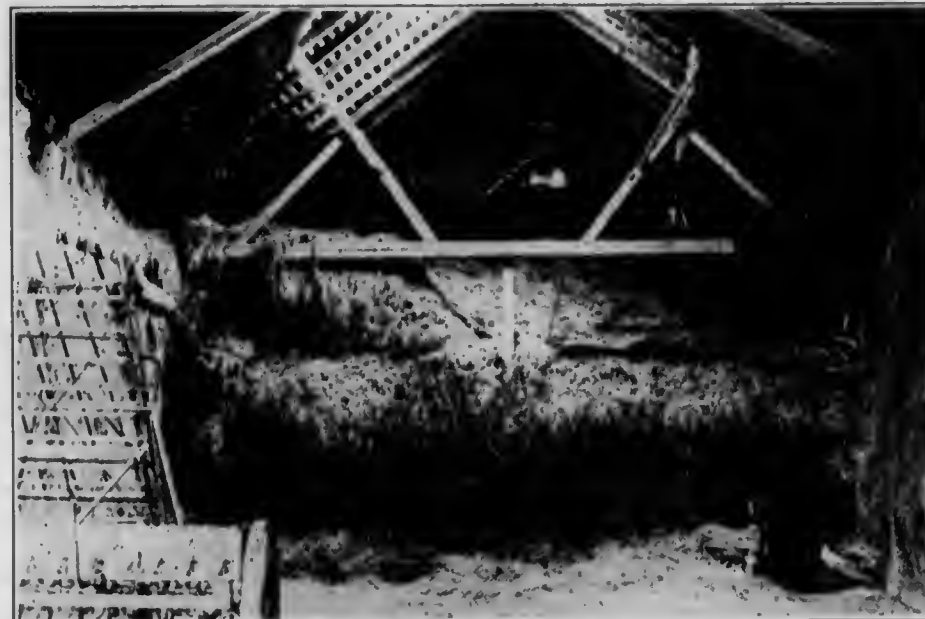
By M. C. Betts and M. A. R. Kelley

(Continued from page 2)

and equipped so that they may be more easily kept in a good sanitary condition and afford a better environment for high producing stock, and that the work of caring for the animals may be done more efficiently.

There have been many changes in animal husbandry practices since these old barns were built. The beef cattle with a few milk cows which they housed in the

Improper stabling and care are contributory causes of disease and are factors in the dissemination of tuberculosis wherever the germs are present. The stabling of cows in dark, damp, poorly ventilated barns affects their health. Continued breathing of foul damp air lowers the vitality of the animals and renders them more susceptible to the attack of disease germs. Pulse and respiration in the high producing cow



2-A Example of timber roof framing

early days, gave place to dairy cows yielding 2000 pounds or less per year. Better breeding and handling increased the yield until now there are several herds in the region surveyed in which the average yield per cow is more than 10,000 pounds.

Dairy herds require more labor than do any other class of livestock and as the milk yield is increased more and a better class of labor is necessary, greater care in feeding and handling must be employed and use must be made of every means of conserving labor and feed.

are appreciably faster than in the low producing animal. The strain induced by poor environmental conditions should not be added to that incident to the effort of high production. Hence it is obvious that, if the production of milk in these old unsuitable barns is to be improved, changes must be made, and that the sanitary conditions must have first consideration.

* Editor's Note:—The first installment of an article, prepared by M. C. Betts, architect and M. A. R. Kelley, Bureau of Public Works, U. S. Dept. of Agriculture. Further installments will be printed in future issues of the Milk Producers' Review.

Cow Testing Important Factor in Dairy Farming

Through the activities of eighteen herd-improvement or cow testing associations in New Jersey's more important dairy sections, more than 400 dairymen of the State are eliminating guesswork in the important tasks of feeding their cattle, in weeding out unprofitable cows and in making their herds more productive through intelligent breeding.

The herd-improvement associations have as their primary objective the demonstration of practices which make the production of fluid milk more profitable. Accurate and impartial data on these practices are gathered by the associations' testers, who visit members once a month. The testers determine the butter-fat content of the milk of all cows in the herds, and they check the dairymen's feeding and milk-production records.

Learn Cost of Feeding

As individual dairymen analyze their association records, they learn the seasonal and annual cost of feeding every cow in the herd. The difference in returns between the inherently good and poor cows is shown in figures that cannot be disputed. Milk and butter-fat records of daughters also prove an invaluable aid in demonstrating the differences in herd sires; in identifying the prepotent bull, which should be retained because of his proved influence in increasing the herd's productive ability. And finally, the association records show the dairymen how savings can be effected and additional profits obtained through skillful feeding practices.

At the present time New Jersey's herd improvement associations, with an enrollment of 425 dairymen, have more than

10,000 cows on test. In this respect New Jersey ranks second among all States.

Memberships Are Brief

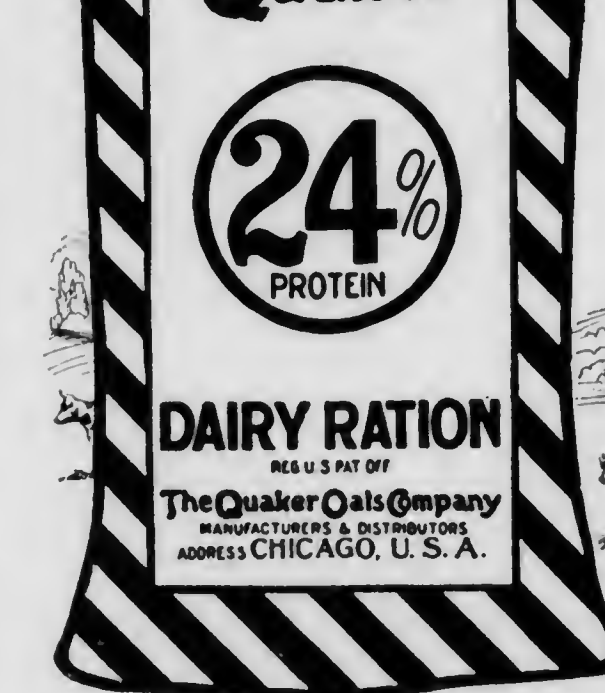
For the great majority of dairymen, membership in the herd associations is intermittent. Records are obtained for a few consecutive years and then the dairymen withdraw until more young cows are coming into production. There are a few dairymen who have been members since the first association was organized in 1914. A score or more men have welcomed the tester once a month during the last ten years.

In the fifteen years that herd-improvement associations have been organized in this State, more than 1400 New Jersey dairymen have at once time or another become members. About 20 percent of the State's dairy herds of ten or more cows have been entered in these associations.

These 1400 dairymen, according to E. J. Perry, extension dairy specialist for the New Jersey Agricultural Experiment Station, have been demonstrators in their home communities of the better practices in successful dairy husbandry.

"At least one-third of them have some pure-breds," he states, "and they have sold a large number of pure-bred bull calves to their neighbors at reasonable prices. These sales have been made on the strength of the annual association records made by the dams and these bulls. It is far better for dairymen to buy their herd sires on this intelligent basis than it is to select a bull from a drover, whose stock is usually brought in from distant points without regard to milk records or butter-fat test."

A Milk Producer and a Profit producer



QUAKER offers you not only a dairy ration that will make milk, but a dairy ration that will make you money! Use Quaker's scientific combination of choice ingredients and you can be sure that you are getting the best for your feed-dollar. It takes other things, of course: common-sense management and suitable roughages. But so far as the grain part of your feed problem is concerned, look to The Quaker Oats Company and the Quaker Dealer in your neighborhood for help in getting more milk at lower cost.

THE QUAKER OATS COMPANY, CHICAGO, U. S. A.

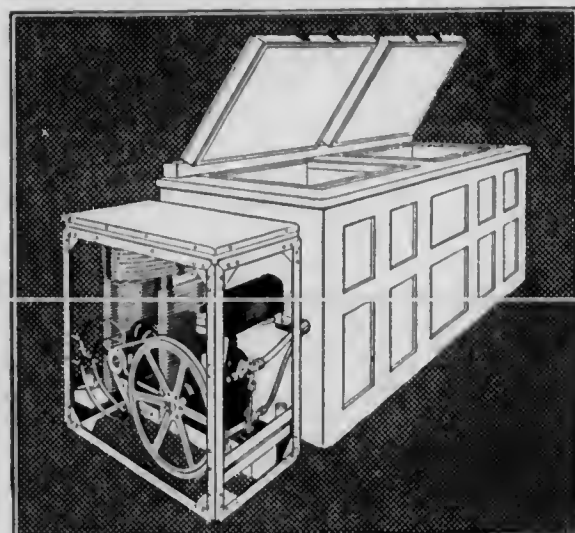
Quaker Sugared Schumacher—is the complete carbohydrate feed; combines perfectly with any Quaker high protein concentrate (24%, 20% or 16%). A choice feed for all young or dry stock; an entire grain ration for horses, steers, lambs and swine



Some Dairy Cattle Now Registered By Photograph

The importance of a camera on livestock farms is emphasized by the recent decision of two dairy breed associations to accept photographs in lieu of the color sketches of animals intended for registration. The breeds concerned are Ayrshire and Holstein-Friesian.

Dairy specialists in the United States Department of Agriculture anticipate increased interest in animal photography as a result of this decision, and call attention to Department Circular 371-C, which discusses the use of the camera in studying the growth and development of dairy animals. This circular gives many practical suggestions, and may be obtained by writing the Department of Agriculture at Washington. Photographs have been used by research workers in the Bureau of Dairy Industry for a number of years, and it has been found that they furnish a prolific source of information which could hardly be secured by any other method of record keeping. These specialists are hopeful that the new ruling of the breed associations will stimulate a much wider use of the camera on dairy farms throughout the country.



Use Frigidaire in any approved tank-type milk cooler on Delta-Light or high line current. You can thus cool milk quicker, better and cheaper, and increase your profit.

FRIGIDAIRE MILK COOLERS

save time—work and money

YOU can cool milk faster, keep it sweet longer, get better prices for it, make more money by operating at lower cost... with Frigidaire.

Frigidaire milk coolers need virtually no attention. They maintain a uniform cool temperature that keeps the bacteria count very low—stop spoilage and waste.

Frigidaire saves work—just the turn of a switch and your tank is properly cooled.

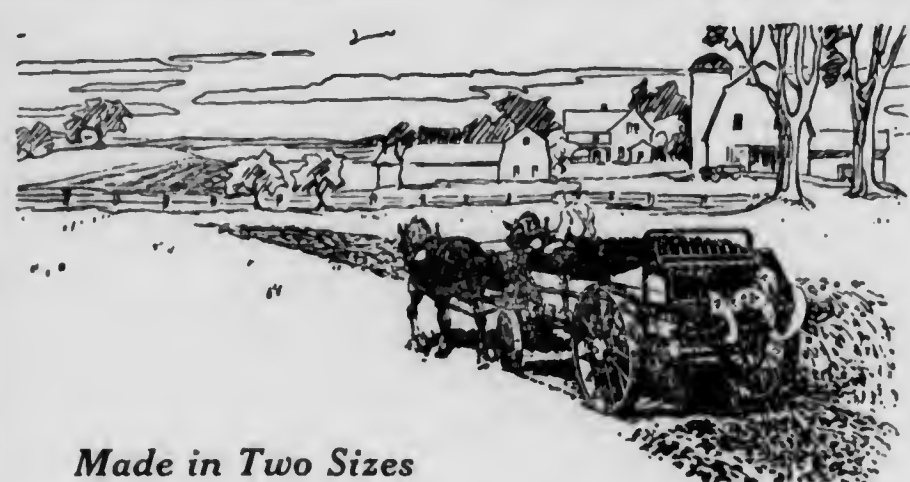
Stop paying for Frigidaire

equipment without having it—get the facts at once—find out how little Frigidaire costs—discover how you can pay for it on unusually liberal terms. Mail the coupon today.

J. J. POCOCK, Inc.
1920 Chestnut Street
Philadelphia

J. J. Pocock, Inc.
1920 Chestnut St., Philadelphia, Pa.
Send me the facts—how Frigidaire will help me make bigger dairy profits. Include prices and terms.

Name _____
Address _____
Town _____ State _____



Made in Two Sizes

You Can Rely on McCormick-Deering Spreaders for Good Work

THE time and labor you save by using a McCormick-Deering spreader amounts to cash equivalent to a substantial payment. The increased crop production you can get by spreading manure evenly and thinly over more acres will lower production costs so much that you cannot afford to continue hand spreading.

The patented widespread spiral on the McCormick-Deering accounts for the exceptionally wide spread. It is never necessary to drive over freshly spread manure.

The light draft of McCormick-Deering spreaders increases their durability and makes possible spreading full-capacity loads without overloading teams. Their durability extends the purchase price over years of continuous usage.

Now is the time to spread manure and today is the day to ask us for prices.

The International Harvester Company

OF AMERICA

Philadelphia

Baltimore

Harrisburg

National Dairy Exposition Makes Record—Best in Many Years

Continued from page 1

portion of one of the adjacent building used for housing the cattle was also used for this purpose.

United States Department of Agriculture

The United States Department of Agriculture, Washington, D. C., made an extensive exhibit relating to many of its various studies of the dairy industry.

Many individual phases of dairying were illustrated and demonstrated. These include among others:—The General Dairy Situation; Co-operation among Dairymen; What Standardization Means; How to Produce Clean Milk; Care of Milk and Cream; Comparisons of Dairy and Beef

was first; Mat C. Escher, second and Melville Richey, third; The team scores were as follows: Ohio State University, Iowa State College and Purdue University.

In the butter contest, Bryan Gordon, Oregon was first; Merle L. Morgan, Kansas, second; and Lewis C. Sorwell, third. The team contests were as follows: Oregon State Agricultural College, Kansas State Agricultural College and Purdue University.

In the Ice Cream grading contests, Raymond C. Young, Purdue, was first; Dwight L. Anderson, Nebraska, second; and Mat C. Escher, Iowa, third. The team scores ranked as follows: Iowa State



Junior Yearling Guernsey Heifer Class Showing Section of Show Ring and Crowd

Type animals: Select Bulls that will increase Herd Production; Use of Dairy By-Products in Cooking and Utilization and Value of U. S. No. 2 and U. S. No. 3 Alfalfa. These demonstrations attracted a large amount of interest, particularly in the graphic manner in which they were demonstrated.

National Dairy Council

The National Dairy Council had an elaborate booth in the Arena with an interesting exhibit. In it were demonstrated methods of reaching the public in connection with the greater consumption of milk, butter, ice cream and cheese.

Contest for Judging Dairy Products
Teams from 15 State Agricultural Colleges, competed in a contest for judging dairy products. The contest was under the auspices of the American Dairy Science Association. The products judged included; butter, cheese, milk and ice cream.

Over 400 contestants were entered for prizes in the various grades of butter, with more than 100 in the cheese contests.

In the milk contest Gale R. Kasler, Ohio, was first; Leland M. Sloan, Kansas, second; and Fairbanks Tryon, Oklahoma, third. In team scores they ranked as follows:—Ohio State University, Purdue University and Oklahoma A. & M. College.

In the Cheese contest, Gale R. Kasler

College, Massachusetts Agricultural College and Ohio State University.

In judging all products, Gale R. Kasler, Ohio State College ranked first; Raymond C. Young, Purdue University, second and Willard C. Boyers, Ohio State College, third. Ohio State University led with the highest team scores, Purdue was second with Ohio State College, third.

Dairy Cattle Contests

The large number of entries in the different breeds of dairy cattle entered as contestants made the job of placing the cattle a tremendous one. Many of the cows and bulls were closely matched and the selection of the cow or bull of the best type was watched attentively by large audiences.

The various awards, owing to the extended field covered can not be enumerated in these columns. On the first page of this issue of the Milk Producers' Review we are reproducing pictures of the Grand Champion cows and bulls, in the leading classes, together with their names and owners.

We also show above a reproduction of one section of the Arena at St. Louis, during one of the judging contests. This will give you an idea of the immensity of the judging ring and seating capacity of the Arena. This picture shows but little over one quarter of its entire area.

Ice Cream Consumption Increases

Both the total and per capita consumption of ice cream in the United States was greater last year than in any preceding year. Total consumption in 1928 is estimated at 348,048,000 gallons, as compared with 335,628,000 gallons in 1927. The estimate is based on reports from 2,258 ice cream factories. The increase in consumption last year was distributed through all seasons, but was largest in the last six months of the year. In the first quarter of 1928 the total consumption was 4.3 per cent greater than in the first

quarter of 1927, in the second quarter it was 1.3 per cent greater, in the third quarter it was 7.2 per cent greater, and in the fourth quarter it was 4.4 per cent greater than in that quarter the year before. The per capita consumption, it is estimated, was 2.90 gallons in 1928 as compared with 2.85 gallons in 1927 and 2.77 gallons in 1926. Per capita consumption ten years ago, in 1919, was estimated at 2.49 gallons and in 1910 at 1.04 gallons. On the basis of these estimates per capita consumption has trebled since 1910.

Pennsylvania Crop Values May Exceed 1928 Total

Despite the severe drought which has reduced the size of many crops, the value of all crops produced on farms in the Commonwealth this year will in all probability exceed the 1928 total, according to the Pennsylvania Department of Agriculture.

The production of several of the principle field crops will be among the lowest on record, but this reduction in supply has increased the price level to such an extent that higher aggregate values are resulting.

The corn crop, for example, is estimated at about 45,000,000 bushels, the lowest since 1909, and yet indicated prices will probably make this short crop worth practically as much as the 50,000,000 bushel crop of 1928.

The wheat crop is 3,000,000 bushels more than the small crop of 1928 and with prices fully as high as those prevailing a year ago, between three and four million dollars will be added to the total value.

Oats will apparently be the smallest crop since 1909, but its total value will undoubtedly be worth as much as last year's crop which was valued at \$18,000,000.

The potato crop is indicated as one of the two smallest since 1918 and yet it may prove to be one of the two most valuable crops on record.

Tobacco production is estimated at 6,000,000 pounds below the 5-year average but it is easily possible that the crop will be the most valuable since the \$10,000,000 production of 1923.

The hay crop will be approximately 500,000 tons less than a year ago but this shortage may easily result in the value of the crop exceeding the 1928 total by several million dollars. While the present hay crop is small compared to 1928, it is pointed out that there have been five smaller crops during the past ten years.

The fruit grower is experiencing conditions similar to those of producers of other crops, that is, smaller total production but higher prices. Approximately 3,000,000 fewer bushels of apples, peaches and pears will be produced this year than a year ago, but it appears that the aggregate value of these crops this year will be a million dollars or more above the value of the 1929 crops. The apple crop will likely be the smallest since 1921, the pear crop one of the two smallest on record, and the peach crop at least 400,000 bushels below the 5-year average.

While estimates on the value of farm crops will not be available until December, it is anticipated that farmers in Pennsylvania will have produced this year fully as large a proportion of the total value of all farm crops grown in the United States as they did a year ago.

Senate Votes 5½ Cent Casein Tariff

By a vote of 52-19 the Senate on October 24th voted to make the import duty on casein 5½ cents per pound.

The Senate Committee on Finance had recommended an increase of the House duty from 2½ to 3½ cents per pound. Senator Shortridge of California had introduced an amendment to make the rate 8 cents per pound. Senator Blaine of Wisconsin offered a substitute amendment to make the rate 5 cents per pound. After two days of debate, Senator Borah of Idaho persuaded Senator Blaine to withdraw his amendment and offered a new substitute for 5½ cents per pound. This was carried by an overwhelming vote.

Because of the technical position of the amendments, both some friends of the 8 cent rate and opponents voted "No" on the modified Blaine amendment.

Cow Testing Association Progress in Pennsylvania

BY E. B. FITTS

Three hundred pounds of butterfat per cow is a goal in Pennsylvania cow testing associations for annual production per cow.

During the year ending July 1, 1929, seven hundred and ninety-two (792) herds reached or exceeded this goal. This is a gain of 139 herds over last year. The leading county was Bradford with 51 herds in six associations followed by Bucks county with 32 herds in two associations and Tioga county with 32 herds in three associations.

For single associations Union county leads with 23 herds followed by Central Pennsylvania Guernsey Breeders association with 22 herds.

Seventy-nine herds had an average production above 400 pounds of butterfat of which four exceeded a 500 pound average yield and one more than 600 pounds.

The high herd was that of Roy S. Boen of Tioga county whose herd of 8 registered Holstein cows had an average production of 656.5 pounds of butterfat. The Jersey herd of H. H. Cooper, Potter county won second place with 534.6 pounds average production in a herd of eight registered cows.

Inter-State Milk Producers' Association 13th Annual Banquet

(Continued from page 1)

bigger and better than ever before—and that means everything.

There will be a brand new play. It will be staged by our own people. It will be its first appearance, and the Milk Maids Chorus will have a prominent part in the cast.

The Kimberton Grange Quartet will also favor us with vocal selections.

Purchase your tickets early and don't forget to locate your seat assignment, posted prior to the banquet, before entering the banquet room.

Second Days Session

The morning session will open with the usual visit to Philadelphia Milk and Ice Cream plants. Register on Tuesday as to the plant you wish to visit. The offices of the Inter-State Milk Producers' Association and the Philadelphia Inter-State Dairy Council, 219 North Broad St., will also be open for inspection.

The second days session will be held at the Benjamin Franklin Hotel, at 10.30 A. M., with an educational program. Addresses will be made by F. F. Lininger, Penn State College, Hon. Theodore B. Appel, M.D., secretary of Health, Commonwealth of Pennsylvania and by Hon. W. F. Shilling, member of the Federal Farm Board.

For further details of program see page 3 of this issue of the Milk Producers' Review.

Penn State Extension Director Gets Leave

Trustees of the Pennsylvania State College have granted Milton S. McDowell, Vice Dean of the School of Agriculture and director of Agricultural Extension, leave of absence from January 1 to July 1, 1930. Director McDowell will spend the six months in a tour of the United States, beginning with a visit to southern states during the winter. Proceeding westward he will spend some time on the Pacific Coast, and will then swing back through the northern states on the return trip to Pennsylvania. Professor McDowell will observe methods and practice employed in the Agricultural Extension work of the states visited.

MAKE YOUR OWN FEED PAY



SEVEN YEARS' SATISFACTION WITH AMCO 32% SUPPLEMENT

New Galilee, Pa.
June 6, 1929

American Milling Co.
Peoria, Ill.

Gentlemen:

For the last 30 years I have been in the Jersey business. For the last 7 years I have fed Amco 32% Supplement, which I mix with my own corn and oats, half and half. During this period my herd has made a steady improvement in both milk and butterfat. We consider Amco 32% Supplement the most economical milk producing feed we can get hold of.

From Sept. 1, 1928 to May 1, 1929 the value of our product over feed cost averaged \$193.29 per month. This snapshot shows some of my Jerseys.

Yours truly,

J. W. Bronson

IF YOU have good roughage, corn, and oats, it is not economical to buy a complete grain ration, although your own grains alone will not produce milk cheaply.

AMCO 32% SUPPLEMENT will add the right quantity of proteins, vitamins, and minerals to your home grown grains to give you steady, heavy milk flow and good condition all year round.

Do not buy a lower protein supplement, because protein is the chief ingredient your own grains lack. You don't need more oats, or more corn, you need more protein. That is what you get in AMCO 32% SUPPLEMENT, which contains no ingredient you can grow more cheaply at home.

At your nearest Amco Agent's you can see the open formula tag on a bag of Amco Supplement. Study the tag and then try a bag. Soon you will agree with Mr. Bronson that, "Amco 32% Supplement is the most economical milk producing feed you can get hold of."

For dairymen who do not have their own corn and oats, Amco mixes AMCO 20% DAIRY and AMCO 24% DAIRY, also on open formulas.



AMCO AMERICAN MILLING COMPANY
FEED MIXING SERVICE
EXECUTIVE OFFICES: PEORIA, ILL.
DIVISION OFFICE: MUNCY, PA.

Plants at: Peoria, Ill.; Omaha, Neb.; Owensboro, Ky.
Alfalfa Plants at: Powell, Garland, and Worland, Wyo.



A Kitchen Bathtub for the Farm Home

A determined woman can surmount just about any difficulty that appears in her way. Miss Mary E. Stebbins, Health Extension Specialist at the University of Missouri, tells of one such woman who lives in a Missouri farm home.

"She made up her mind that her family should have a chance to take regular and frequent body baths in the fall, winter, and spring, as well as in the more convenient summer season, writes Miss Stebbins. That involved comfort and convenience and special bathing opportunities even if the house did not have a regular bathroom and was not likely to have one for a quite indefinite 'some time to come.'"

This determined farm woman recognized that a comfortably warm atmosphere makes it easier to want to bathe, and that warm water should be conveniently located. She knew that privacy must be assured, and that the bath is more alluring when the used bath water does not have to be carried out into the back yard somewhere as a method of disposal. Now see what she did.

In her kitchen is what appears, at first glance, to be an oblong work table not very different from tables found in any farm kitchen, except that a curtain hangs from the edge of the top on three sides. That is only the beginning of the differences, for the top is hinged at the back so that it can be raised, at the same time lifting the curtain. When the table top and curtain are so raised, an almost full-fledged bathtub is revealed. Not quite full-fledged, for there are no faucets, but it is permanently attached to a functioning drain pipe, and that is the big inducement which often crystallizes doubt into decision when the question "to bathe or not to bathe" arises. No one minds pouring water into a tub so much as emptying it out.

Warm and Private

The kitchen stove not only heats the water which is thus near the bathtub, but automatically heats the "bathroom" too. The kitchen is the warm spot in a farmhouse on a shivery day. The rest of the family can be temporarily ousted, or a curtain on an overhead wire can be drawn around the tub.

A very large tub is not a requisite. A smaller one can be used just as well and does not require so much water. This is often a matter of importance.

When the bath is finished, that convenient little drain pipe carries off all the water. The tub can be easily and quickly cleaned, and once the top with its curtain is lowered—there is the kitchen once again. No arguments about baths in that family, even when "the creek is too cold."

A rural home, and indeed even a remote farm home, without a legitimate bathroom with stationary plumbing is becoming less and less common. Lack of facilities, however, is no excuse for lack of personal cleanliness, and determination and imagination can devise makeshifts until the porcelain bathtub and nickel faucets become a reality. Farm women have shown ingenuity in adapting modern standards of social acceptance to their limited surroundings. Saturday night is every night—even down on the farm.

Every child needs a place of his own for play and playthings.

An Instance of the Value of Living Supplied by Farm

The farm family obtains a substantial part of its living from the farm itself, whereas families living in cities generally must buy the food, fuel, ice, and housing used.

To determine what part of the "family living" actually comes from the farm, 22 farm home makers in Frederick County, Md., agreed to cooperate with the Bureau of Home Economics of the United States Department of Agriculture in keeping exact records for a 12-month period. Their reports, though not conclusive, give a very good picture of what the farm supplies.

Articles brought in from the garden

or storeroom for use by these farm families were weighed and a record made.

In actual cash these families spent an average of \$1,712.70 for the year. This varied from \$737.70 for one family to \$3,734.50 for another.

The average value of family living furnished by the farm, therefore, is \$988.93, or about 36.7 per cent of the total living cost.

Food was the largest single item in these family budgets furnished by the farm, and valued at \$651.44, was 24.1 per cent of the total value of family living. Housing was the next important item, being valued at \$280.64. Fuel furnished by the farm varied from \$5 to \$116.50 a year.

ACORDIAL invitation is extended to the ladies of the Inter-State Milk Producers' Association to attend the meeting to be held in the offices of the Association, 219 N. Broad Street, Tuesday morning, November 19th, at 10 o'clock.

Dr. Clyde L. King, president of the Philadelphia Inter-State Dairy Council, will make the welcoming address.

Miss Verna Elsinger, of the Ohio State Farm Bureau Federation, will discuss the "Co-operative" Woman.

There will be a short play by members of the Oxford Local of the "Inter-State."

Address will be made by members of the Dairy Council Staff.

Following the morning meeting, luncheon will be served in the office by the staff of the Nutrition Department of the Philadelphia Inter-State Dairy Council.

Immediately after lunch transportation will be furnished for any guest who desires to return to the Benjamin Franklin Hotel.

Mrs. ROBERT F. BRINTON,
Chairman, Hospitality Committee.

FATHER'S ADVICE

My dad and I, long years ago were walking down the street. When suddenly a little dog came yelping round our feet. He snarped and snarled so viciously—that angry little pup. Appeared to me, as though he thought he could eat us up; I turned and threw some stones at him which always missed the mark. But when I tried to drive him off the louder he would bark.

"Now, son," my father said to me, "just plod along your way. Don't turn your head for yelping dogs, remember what I say. You'll notice if you pay no heed to him and hold your peace. That little dog will soon grow tired and all his noise will cease; But every time you stamp your foot and shout to him: 'Begone', You show that he's annoying you and keep him following on."

'It takes a dog to fight a dog.' Post that above your shelf; When canines come and snarl at you, don't be a dog yourself. And later, when you're older grown, and petty men attack, Don't stop to pick up stones to throw, don't try to answer back; Just walk right on and pay no heed to anything they say. And very soon they'll give it up and turn and run away.

It is a very ancient dodge these petty minds employ. They say the gods first angry make the men they would destroy. And little dogs and little men who snarl behind your back. Will only snarl the louder if you answer their attack; And they'll have done the very thing they started out to do. If, being yellow dogs themselves, they made one out of you.

—EDGAR A. GUEST,
In the Pioneer Sweetheart.

Fall Uses for Pumpkins and Honey

A good pumpkin pie cannot be beaten, but for variety why not make the pumpkin pie individual ones served on paper doilies? For this, line your muffin tins with the crust, fill with pumpkin mixture and bake 30 minutes in a moderate oven.

Chopped nuts or whipped cream are delicious served with it and take away from the plain appearance.

Pumpkin Pie

1 1/2 c. steamed and strained pumpkin.
2-3 c. brown sugar
1 tsp. cinnamon
1/2 tsp. ginger
1/2 tsp. salt
2 eggs (slightly beaten)
2 tbsp. melted butter
1 1/2 c. milk

Mix first six ingredients together, add the melted butter and milk last. Pour into crust and bake in moderate oven until it is set.

Cheese Straws

Roll crust to one quarter inch in thickness. Sprinkle one half of it with grated cheese. Fold over the other half and roll out again. Sprinkle with cheese and proceed as before. Do this three times. Cut in very narrow strips and bake in a quick oven.

The Thanksgiving season is a time of family gatherings and other festivities. It means a tax on the ingenuity of the hostess to have a variety of refreshments.

A platter of pop corn balls placed with in easy reach of the young people will prove a popular tid-bit.

Honey Corn Balls

3 qts popped corn
1 c. honey
1 c. sugar
2-3 c. water
2 tbsp. butter
1/4 tsp. salt.

Discard all imperfect kernels of corn. Put the corn into a large pan. Cook sugar, honey and water to the crack stage. Add flavoring and salt. Pour slowly over the corn stirring with a spoon so that all kernels will be evenly coated. Shape the corn into balls and lay on waxed paper. Wrap in waxed paper if desirable.

If you are counting caloric value, one tablespoon of honey is twice as important as the same amount of sugar; and almost twice as valuable in furnishing energy as the same amount of molasses and maple syrup.

Sweet Potatoes and Honey En Casserole

4 pounds sweet potatoes
2 pounds tart apples
1 cup warm mild honey
1-8 pound butter
1 teaspoon salt

Boil sweet potatoes with skins on. Pare while hot. Mash thoroughly. Line a baking pan that has been well greased with layer mashed sweet potatoes, then layer of sliced apples, sliced same as for pie. Drizzle about a quarter cup of honey sprinkle with salt and dot with butter; repeat this until potatoes, apples, and honey are used. Top with layer of sweet potatoes, brush with butter and bake in moderate oven for 45 minutes to one hour.

Bedtime on Farm Remains Stationary

Bedtime back on the farm remains one of the few things American which have remained practically stationary for a century, it is disclosed in a radio survey to determine the time of day the farmer listens to broadcast.

"The urban propensity to make whoopee has not affected the 'backbone of the nation,' otherwise the farm population," declared Richard E. Smiley, director of the institute and vice-president of the Bremer-Tully Manufacturing Co. "That fact is definitely determined by the result of some 30,000 individual replies to queries sent to radio owners in agricultural centers throughout the nation."

"Time when the largest farm audience is on the air is exactly 8:30 o'clock (standard time) in the evening. From that time on the audience rapidly falls off."

"Eight-thirty P.M. (Standard Time) is the peak hour for the nation as a whole," according to Mr. Smiley. "In the middle west a maximum is reached at 8 o'clock, with a decrease noted by 8:30 P. M."

"Only a few farm folks listen to radio programs before noon or in the afternoon. The average morning audience runs less than one-tenth of the total. High noon is a favorite time for exercising the dials, with approximately 60 per cent of the farm radio users on the air then."

Results From Our Work

Does milk service for school children bring results? Listen to this: Several years ago the principal of the Shepard School in Philadelphia, Miss Bessie Collins, started serving milk in that school. She stimulated the sales up to 480 bottles a day, distributing and washing the bottles herself. Later the children were given charge of distribution. But here is the point:—in a survey of the Nutrition Classes for that year, the children in the Shepard School were found to have made more physical progress than any other in the city.

Its Never too Late to Learn

The privileges of a college education are still within the reach of the woman who has never been to college.

Correspondence courses offered by reputable institutions enable her to continue her education and at the same time keep her hand on home affairs. Pennsylvania State College is offering free instructions in 41 subjects in agriculture and home economics. There are eight courses offered in animal husbandry, nine in horticulture, four in dairying and seven in miscellaneous subjects.

The courses in home economics include Principles of Cookery, Canning and Preserving, Table Service, Garment-making and House-furnishing.

Such courses were first offered in 1899. Up to the present time more than 37,000 students have been enrolled for the work. During the past year approximately 4,000 received instructions and 12,000 lesson reports were received.

A circular containing descriptions of all the courses and listing reference books to be used is available to all interested in getting an education by mail, and may be secured from the Director of Correspondence Courses, State College, Pennsylvania.

Nearly one-third of the annual output of dairy products is handled by the co-operative agencies created and contracted by dairy producers. In 1928, thirty-three per cent of the creamery butter was made by co-operative enterprises, also 28 per cent of the cream. Also 28 per cent of the cheese. A large part of the fluid milk used in the larger cities is supplied by co-operatives.



BARGAIN DAY!

IT'S BARGAIN day in town... the Checkerboard car of Purina Chows has just arrived! Some folks are saving money today. They are driving directly to the car for their feed... to save delivery, warehouse and handling charges. They are paying cash... to save credit charges. When they call at the dealer's place of business he is the one who performs these services and, of course, he must ask a fair charge for them.

But a much bigger bargain is in store for those who trade at the Checkerboard car today... the bargain they buy in a ton of Purina Chows! Perhaps you have already read somewhere of the survey carried on for 12 months among thousands of farmers in both United States and Canada. It reveals that one ton of Purina Chows earns on the average of \$25 more per ton than other feeds do.

Twenty-five extra dollars... that is a bargain! The day the Checkerboard car arrives in your town... let you be one of those at the car door!

Philadelphia Inter-State Dairy Council

General Offices
Flint Building, Philadelphia
A co-operative movement established for the dissemination of information and publicity pertaining to the production and distribution of dairy products and their good value in nutrition.

Affiliated with the National Dairy Council

Officers
Dr. Clyde L. King, President
H. D. Allebach, Vice President
R. W. Balderston, Executive Secretary
R. J. Harrison, Jr., Treasurer

Departmental Branches
C. I. Cohee, Director Quality Control Department
Lydia M. Broecker, Nutrition Department
Del Rose Mecan, Dramatic Department

CLOTHES FOR THE SMALL BEGINNER

When it comes to children's clothing, fashion experts must take a back seat to psychologists and educators. Mothers realize more and more the importance of the right kind of clothing rather than the style. By choosing the right clothes and having patience and sympathy during the awkward fumbings of the young beginner, a mother can help her child learn to dress and undress himself at an early age.

Garments which are easy for the child to adjust are a great help, says the New York state college of home economics. In general it is well to have as few fastenings as possible on the small garments. Since hooks, snaps, and small buttons are difficult to manage, taped-on buttons at least three-fourths of an inch in diameter are recommended. Front closings should be chosen for all garments but especially for union suits, underwaists, and sleeping garments. Four buttons across the back of trousers and bloomers are easier to reach than three, because they avoid that difficult button in the center of the back. Zipper fastenings are easy for children to use, and are fun besides. Before the child can button or snap he often can learn to use these simple fastenings and will find pleasure in putting on by himself even such cumbersome garments as leggings. Some mothers find that if the colored bloomers which match the child's dress are finished with a white belt in the front, the child will not confuse front and back.

The Dairy Industry Needs Concrete

For Dairy Barn Flooring its Sanitary Qualities are unsurpassed. Concrete Flooring is an important factor in the Production of Clean Milk and in the Eradication of Infectious Diseases as Contagious Abortion, Tuberculosis and Contagious Mastitis.

It can be cleaned easily, quickly and thoroughly by scraping or by flushing.

It can be disinfected easily, quickly and thoroughly.

It is durable against wear.

It will not rot, swell or disintegrate because of flushing or disinfection.

It provides no corners, crevices, cracks or other lodging places for filth.

It does not absorb odor-producing filth.

FREE FLOOR PLANS

Ask for our new four-page folder describing "Dairy Barn Floors and How to Build Them."

Portland Cement Association

1315 Walnut St.
PHILADELPHIA

Please send me a free copy of your booklet on "How to Build Concrete Floors in Dairy Barns."

Name.....

St. Address (or R. F. D.).....

City..... State.....

Report of the Quality Control Department Philadelphia Inter-State Dairy Council

The following is a report of the work done by the Quality Control Department of the Dairy Council for the month of September, 1929.

No. Inspections Made... 2520
Sediment Tests..... 825
No. Permanent Permits Issued..... 174
No. Temporary Permits Issued..... 88
No. Meetings Held..... 4
Attendance..... 9700
Reels Movies Shown... 13
No. Man Days—
Fairs and Exhibits... 3
Bacteria Tests Made (Plants)..... 25
No. Miles Traveled..... 19625
During the month 12 dairies were discontinued from selling for failure to comply with the regulations—6 dairies were reinstated before the month was up.
To date 145, 301 farm inspections have been made.

Give Cows a Rest

Dairy cows should always have a rest period of 6 to 8 weeks before freshening and be given plenty of good feed during this important period. More milk, greater profits, and healthier cows will result.

Fall pasturing of alfalfa is good for the cows, but hard on the alfalfa.

Trappe Local

Holds Meeting

The local unit of the Inter-State Milk Producers' Association at Trappe, Montgomery County, Pa., held an interesting meeting on October 25th in the Grange Hall, in that place.

Addresses were made by J. O. Eastlack, Statistician, Inter-State Milk Producers' Association, who outlined the many phases of the proposed new tariff legislation. E. P. Bechtel, of the Field and Test Department, outlined general milk marketing conditions in the Philadelphia Milk Shed, and discussed the modifications of the Philadelphia Selling Plan. H. A. Schell, of Part Providence, Montgomery County, recounted his experiences of a trip to the "Northern Tier Counties," where he recently purchased a car load of Holstein cattle for his own herd.

The following delegates were elected to attend and represent the unit at the coming annual meeting of the association. Charles Longacre and W. C. F. Randolph. The officers of the Trappe Local are I. C. Brunner, president; and Abram Gotwath, secretary and treasurer.

Keep the dairy heifers growing. They will develop into larger cows and better milk producers if not stunted through short rations or neglect during the period of growth.

"And what," asked the teacher, "is poetry?"

"Poetry," answered the class bright boy, "is chickens."

COW TESTING ASSOCIATIONS

Keystone Dairymen Test 24,537 Cows

Testing 24,537 cows in September, 71 associations found 1803 cows producing more than 40 pounds of butterfat and 2667 cows giving more than 1000 pounds of milk. C. R. Gearhart, supervisor of cow testing at the Pennsylvania State College, reports.

West Chester Dairymen tested the largest number of cows, 631. The Cumberland No. 1 Association led in the number of 40-pound cows with 76 and in the 1000-pound milkers with 123.

Fitzgerald Brothers, of the Ulster association in Bradford county, had the best individual cow record in milk, 2736 pounds, and the best butterfat mark, 109.4 pounds, produced by a registered Holstein.

Mifflin County Association

Robert Shaw, Tester J. C. Thompson, County Agent

The Mifflin County Cow Testing Association finished its seventh year August 1, 1929, with 22 whole year, and seven part year members. There were 371 cows in the association during all or part of the year.

The result for the Association for the seven years is as follows:

Year	Ave. No. Cows	Lbs. Milk	Lbs. Butterfat
1921.....	7470	7470	274.7
1922.....	6971	6971	270.8
1923.....	7564	7564	280.8
1924.....	180.74	8380	305.0
1925.....	213.40	8980	308.1
1926.....	251.49	9392	332.9
1927.....	227.90	8725	317.5

The results for the members are as follows:

Ave. No. Cows in the Association.....	227.90
Ave. per cow: lbs. of milk.....	8725
percentage of butterfat.....	317.5
value of product.....	3.6
cost of roughage including pasture.....	\$246.77
cost of grain.....	52.21
total cost of feed.....	62.04
value of product above feed cost.....	114.25
returns for \$1 exp. for feed.....	132.52
feed cost per 100 pounds of butterfat.....	2.16
feed cost per pound of butterfat.....	1.31

INDIVIDUAL HERD RECORDS

Sixteen herds with an average of five or more cows exceeded an average production of 300 pounds of butterfat. A complete list of these herds follows:

Owners Name and Address	Ave. No.	Breed	Lbs. Milk	Lbs. Butterfat
R. H. King, Belleville, Pa.....	8.33	R.H.	11,950	426.1
Samuel M. Yoder, Belleville, Pa.....	10.67	R.G.H.	11,494	420.7
A. C. Yoder, Allensville, Pa.....	13.08	Mixed	8,292	368.8
J. B. Byler, Allensville, Pa.....	9.92	R.G.H.	9,281	348.7
David E. Peachey, Jr., Belleville, Pa.....	11.25	R.G.H.	10,693	348.6
Pius Kanagy, Belleville, Pa.....	16.33	R.G.H.	10,025	347.0
Jacob P. Yoder, Belleville, Pa.....	11.33	R.G.H.	8,848	335.7
Fern Aurand, Lewistown, Pa.....	9.08	C.H.	9,835	330.1
Fred W. Brown, Mill Creek, Pa.....	7.67	Mixed	9,076	327.4
McClure Snyder, Lewistown, Pa.....	9.83	R.H.	10,418	325.5
B. R. Byler, Allensville, Pa.....	9.08	R.G.H.	8,953	324.1
John Y. Hostetler, Belleville, Pa.....	8.23	G.G.	6,700	315.6
Samuel Mitchell, Lewistown, Pa.....	9.83	R.G.H.	8,704	314.6
George D. Aurand, Lewistown, Pa.....	8.50	Mixed	8,626	314.0
Roy H. Brown, Mill Creek, Pa.....	12.25	Mixed	8,127	313.2
W. J. Crissman, Lewistown, Pa.....	12.08	R.H.	9,386	304.2

New Jersey Cow Testing Associations

High Herd Average for August

Association	Member	Lbs. Milk	Lbs. Butterfat	Feed Cost per 100 Lbs. Milk
Salem No. 1.....	C. H. Bassett.....	1052	38.8	\$0.22
Flemington.....	Elmer Schomp.....	741	33.1	.22
Mercer-Middlesex.....	A. C. Groendyke.....	973	31.9	.23
Burlington, No. 2.....	C. B. Cramer.....	735	34.4	.24
Hunterdon-Somerset.....	Carrie Ramsey.....	798	27.5	.24
Somerset.....	Raymond S. Sutherland.....	1056	34.6	.26
Warren, No. 1.....	Hans Schinzlin.....	1137	38.2	.29
Sussex, No. 2.....	Stanley Roberts.....	1171	33.9	.31
Morris.....	Paul M. Juder.....	1020	37.1	.34
Sussex, No. 1.....	Hudson Guild Farm.....	973	31.0	.36
Mercer.....	Henry Schmidt.....	621	31.0	.36
Monmouth.....	T. S. Titworth.....	1454	43.2	.37
Salem-Cumberland.....	Edw. Phillips.....	722	34.9	.41
Gloucester.....	Locust Grove Farm.....	717	34.8	.44
Burlington, No. 1.....	Mrs. O. L. Darnell.....	885	33.0	.45
Warren, No. 2 (Old Plan).....	Bennett and Jostura.....	767	25.1	.61

THE THREE HIGH COWS IN MILK PRODUCTION FOR AUGUST

Association	Owner	Lbs. Milk	Feed Cost of 100 Lbs. Milk
Sussex, No. 2.....	Stanley Roberts.....	2164	\$0.79
Monmouth.....	J. L. Pittenger.....	2115	.46
Morris.....	Paul M. Kuder.....	2096	.94

THE THREE HIGH COWS IN FAT PRODUCTION FOR AUGUST

	Lbs. Fat	
Burlington, No. 1.....	Ellis Wills & Bros.....	.85
Mercer-Middlesex.....	R. H. Krog.....	.65
Sussex, No. 1.....	Little Flower Monastery.....	.91

LOCALS HOLD MEETING

Hagerstown Local, Hagerstown, Md., held a meeting on October 21, when Simon L. Dorameig was elected president. Ira Downey, secretary and Simon L. Downey, delegate to the annual meeting of the association.

At the Keldysville Local, M. L. Cutten was re-elected president, Cecil Haines, secretary-treasurer and Raleigh Poffenberger, delegate to the annual meeting. D. Allebach, President; S. Blaine Lehman, director; and E. C. Dunning, represented the Inter-State Milk Producers' Association at these meetings.

The Corporation Farm*

The Agricultural Service Department of the United States Chamber of Commerce has recently made a study of corporation farming. It finds that "taken as a group, the large-scale farms apparently have been no more, nor any less, successful than the average of the family-size farms." If large-scale farms are to be more successful than family farms they must reach a higher degree of efficiency than most of them do.

Detailed information regarding organizations and operation was secured from 74 large farms in different parts of the United States. These farms averaged 11,797 acres; the average capitalization was \$553,743; average gross income for a year ending in 1928 was \$102,676. The study shows that large-scale farms may have advantages over family farms in "superior management organization, more efficient utilization of machinery specialization of labor, buying and selling in wholesale quantities, and, in some instances, reduction of overhead expense."

The main disadvantage is the difficulty of securing efficient laborers who will take the same interest in the success of the business that is taken by farm families. Machinery cannot be used as efficiently as in industries where mass production is possible nor is complete division of labor practicable.

It would seem that, leaving the cultural phase of the problem out of the picture, corporation farming is not yet in a way to supplant family farming.

*Reprinted from "Information Service," Department of Research and Education, Federal Council of the Churches of Christ in America.

966 Townships in Area T. B. Work

Bovine tuberculosis eradication work on an area basis is now being conducted in 966 townships in 58 counties, according to the Pennsylvania Department of Agriculture. Twenty-four of these counties are accredited and four additional counties are completely tested, but have not as yet been accredited.

Latest reports from the Bureau of Animal Industry indicate that area work is now being conducted in Clinton, Bedford, Center, Juniata, Schuylkill and Wayne counties. When the work now under way is completed in these counties, all the cattle in Wayne, Bedford, Clinton, and Juniata counties will have been tested. This will likely add several counties to the modified accredited class during October.

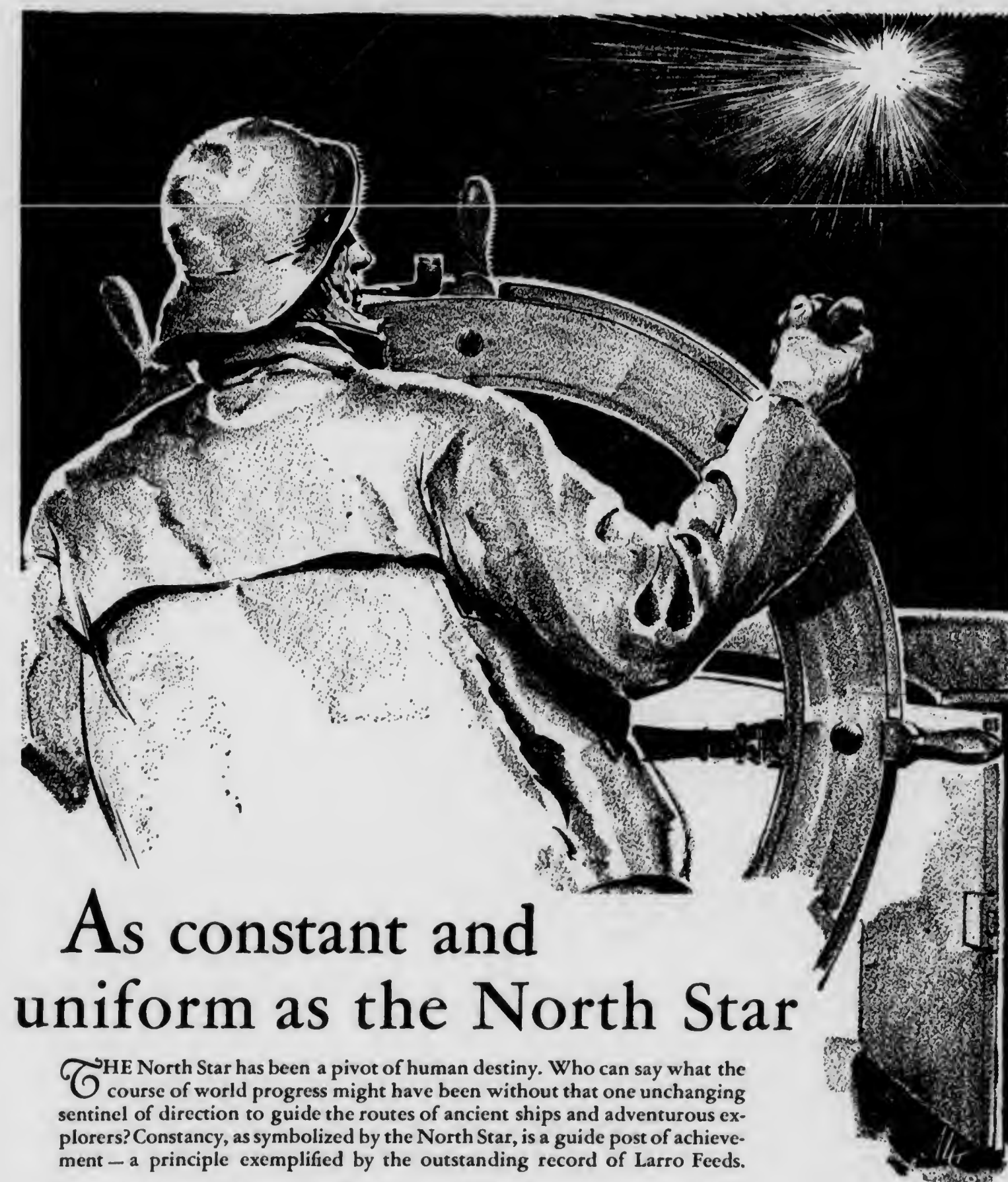
It is anticipated that by January 1, 1930, all herds in at least 40 of the 67 counties will have received the tuberculin test. With approximately 70 per cent of all the cattle in Pennsylvania now tuberculin tested, it is believed that by May 31, 1931, the figure will be increased to 90 per cent.

Farm Board Gets Congressional Approval

Confirmation of the eight appointees of President Herbert Hoover, as members of the Federal Farm Board, were approved by the United States Senate, early in October.

The board members and the term of each members was as follows: Carl Williams, Oklahoma, Cotton, 6 years; James C. Stone, Kentucky, Tobacco, 5 years; Charles S. Wilson, New York, Miscellaneous Agriculture, 4 years; C. B. Denman, Missouri, Live Stock, 3 years; William F. Schilling, Minnesota, Dairying, 2 years; S. B. McKelvie, Nebraska, Grain, 2 years; C. C. Teague, California, Fruits and Vegetables; and Alexander H. Legge, Chairman, Illinois, General Business, 1 year each.

The National Secretary of Agriculture is also a member of the Board.



As constant and uniform as the North Star

THE North Star has been a pivot of human destiny. Who can say what the course of world progress might have been without that one unchanging sentinel of direction to guide the routes of ancient ships and adventurous explorers? Constancy, as symbolized by the North Star, is a guide post of achievement—a principle exemplified by the outstanding record of Larro Feeds.

Through a period of unproved fads and theories in the feed business, when many a feeder has lost money by using feeds that could not be relied upon for the same results from one batch to the next, the constancy and uniformity of Larro Feeds have stood out like a beacon.

Fads and theories go to the Larro Research Farm for proof—not to Larro customers. Most of these fads, in fact, were tried and rejected there long before they were taken up elsewhere. Many years of scientific re-

search and experimental feeding at the great Larro proving ground have cleared the way for Larro quality.

Feeders who buy Larro come back for more month after month and year after year because they know that Larro is always uniform—always the most profitable feed they can buy. That is why Larro Feeders are enjoying greater profits each year.

You, too, can get greater production and make more money with Larro. Start now.

Have you tried Larro Flour—the new general purpose Flour? Ask your dealer.

Feeds that do not vary **Larro** For Poultry, Hog and Dairy

LARROWE MILLING COMPANY, DETROIT, MICHIGAN

104 Frelinghuysen Prizes Awarded Junior Breeders

Boys and Girls Received \$448 in Premiums

Awards totaling \$448.50 in premiums and sweepstakes were won at the New Jersey State Fair, held at Trenton, N. J., last month, by young owners of purebred livestock in New Jersey who purchased their stock through the Frelinghuysen Fund and exhibited their animals in the

slow ring at the Fair to compete for the prizes offered by the Department to members of the Junior Breeder's Association. Five sweepstake prizes, amounting to \$125, were presented to the youthful breeders by the Hon. Joseph S. Frelinghuysen, sponsor of the loan fund. The \$25 sweepstakes, winners for the best cow and calf were: Holsteins, George Tindall, of White Horse; Guernseys, Roger

Merrick, of Farmingdale; Jerseys, Charles Davison, of Cranbury. For the best sow with litter, Ellwood Jones, of Crosswicks, was the winner. Harold Schaible, of Trenton, won the \$15 sweepstakes for the best pen of poultry, while Karl Weiseman, of Upper Montclair, exhibited the best male bird and Elizabeth Kendall, of Cranbury, the best hen, to win the \$5 sweepstakes in these classes.

Keeps floors dirt-free

TRY OAKITE for cleaning cow barn floors. You will find that, with less effort, you can keep floors free from dirt and stains.

Oakite cleaning loosens all the grime and drives it out, without leaving slippery films or sticky spots on floors.

Our nearest Service Man can supply you with Oakite. Write us and he will call. No obligation of course.

Oakite Service Men, Cleaning specialists are located in the leading industrial centers of U. S. and Canada

Manufactured Only by

Oakite Products, Inc., 34 F Thames St., New York, N. Y.

OAKITE

Industrial Cleaning Materials and Methods

DAIRY COUNCIL SERVICE

The various departments of the Dairy Council are at your service and will assist you in planning

Educational Entertainment

For your Community, Local or Club Meeting.

The Dairy Council has carried the message of "Milk for Health" to hundreds of thousands of producers and consumers in the Philadelphia Milk Shed.

Lectures and Speakers on Health Programs ARE AVAILABLE

Motion Picture Films on Dairy Subjects
Lantern Slides Literature
Posters

Short Plays for the Children, etc.

ARE YOURS FOR THE ASKING
Write us for detailed information and programs

Let us assist in Planning
Your Entertainment

Philadelphia Inter-State Dairy Council

R. W. BALDERSTON, Secretary

FLINT BUILDING

219 North Broad Street Philadelphia, Pa.

Inter-State Milk Producers Association

Incorporated
Flint Building, 219 N. Broad St.
Philadelphia, Pa.

Representing over 21,000 Dairy Farmers in the Philadelphia Milk Shed

OFFICERS

H. D. Allebach, President
Frederick Shangle, Vice President
R. W. Balderston, Secretary
I. R. Zoller, Asst. Secretary
Robert F. Brinton, Treasurer
F. M. Twining, Asst. Treasurer

Board of Directors

H. D. Allebach, Trappe, Montgomery Co., Pa.
S. K. Andrews, Hurlock, Dorchester Co., Md.
J. H. Bennett, Sheridan, R. D., Lebanon Co., Pa.
Ira J. Book, Strasburg, Lancaster Co., Pa.
Robert F. Brinton, West Chester, Chester Co., Pa.
E. H. Donovan, Bensford, Kent Co., Del.
E. Nelson James, Rising Sun, Cecil Co., Md.
J. W. Keith, Centerville, Queen Anne's Co., Md.
H. I. Lauer, Port Royal, Juniata Co., Pa.
S. Blaine Lehman, Chambersburg, R. D., Franklin Co., Pa.
A. R. Marvel, Easton, Talbot Co., Md.
I. V. Otto, Carlisle, R. D., Cumberland Co., Pa.
J. A. Poorbaugh, York, York County, Pa.
C. F. Preston, Nottingham, R. D., Chester Co., Pa.
Albert Sarig, Bowers, Berks Co., Pa.
John Carvel Sutton, Kennedysville, Kent Co., Md.
Frederick Shangle, Trenton, R. D., Mercer Co., N. J.
C. C. Tallman, Columbus, Burlington Co., N. J.
R. J. Tussey, Hollidaysburg, Blair Co., Pa.
Harry B. Stewart, Alexandria, Huntingdon Co., Pa.
S. U. Troutman, Bedford, R. D., Bedford Co., Pa.
E. M. Twining, Newtown, Bucks Co., Pa.
F. P. Willis, Ward, Del. Co., Pa.
A. B. Waddington, Woodstown, Salem Co., N. J.

Directors of Inter-State Milk Producers' Association, Inc

Whose terms expire with the coming Annual Meeting of the Inter-State Milk Producers' Association, to be held in Philadelphia, Tuesday, November 19th, 1929.

F. P. Willis, Ward, Delaware Co., Pa.
Ira J. Book, Strasburg, Lancaster County, Pa.
H. D. Allebach, Trappe, Montgomery County, Pa.
E. H. Donovan, Smyrna, R. D., Kent County, Del.
Robert F. Brinton, West Chester, Chester County, Pa.
Albert Sarig, Bowers, Berks Co., Pa.
S. Blaine Lehman, Chambersburg, R. D., Franklin County, Pa.
S. K. Andrews, Hurlock, Dorchester County, Md.

Nails in Feed Fatal to Cows

A large number of mature animals at the Government dairy experiment farm, Beltsville, Md., have died from the effects of swallowing nails, wire, or similar material than from any other one cause, according to the Bureau of Dairy Industry, United States Department of Agriculture. Autopsies made at this station showed that out of a total of 26 deaths over a period of years 12 were due to swallowing foreign objects, the most common of which was a sharp-pointed piece of wire 2 to 3 inches long. Such material collects in that part of the stomach known as the "honey comb" or reticulum. Some of the sharp-pointed objects may pass through the stomach wall and pierce the heart or other vital organs, with fatal results.

Eastern States Farmers' Exchange

The Responsibility Is Yours

Or to put it in the language we all speak, "It's up to you!"

Nothing that the Government can do through the tariff, or the Federal Farm Board can make farmers prosper. Nothing that the farmer organizations do can make farmers prosper. These agencies can to a greater or less extent give farmers the opportunity to prosper. Whether farmers do so depends upon their ambition, their intelligence, and the grit with which they apply their intelligence to the task of keeping pace with their ambition.

The Inter-State Milk Producers' Association is making it possible for dairymen in the Philadelphia milk shed to obtain more for their milk than these dairymen would be able to secure were they not constantly represented by their faithful marketing servants.

But only those farmers who combine better than average intelligence with more than average grit are making a good thing out of the present dairy situation. It is well that this is so, for were it otherwise, there would be so many people making milk that no one could make a dollar at it.

A large proportion of the farmers who are making good dairying are those who are purchasing their commodities through the Eastern States Farmers' Exchange. This co-operative purchasing organization devotes its attention to selecting feeds, seeds, and fertilizers which will produce most economically. Of course, it is a service effective for individual farmers only in proportion to their ability to make the best use of it, but because its progressive program appeals only to the more intelligent, it is natural that its members should be among the more successful in their profession.

Where Records are Kept Eastern States Service Proves its Worth

No farmer is too small and none too large to benefit from Eastern States service. If you also are thinking of trying the service which 30,000 are endorsing with their patronage, write the office for information.

Eastern States Farmers' Exchange

A non-stock, non-profit organization, owned and controlled by the farmers it serves

HEADQUARTERS:
SPRINGFIELD, MASSACHUSETTS

Real Compensation Insurance

Our policies furnish compensation protection as required by the Compensation Act and in case of accident pays benefits according to the Act.

We protect the employer, 24 hours in the day, regardless of when or where an accident might occur.

We paid a dividend for 1928 of 18%.

This Company made a gain of 30% in its premium writings for 1928.

This Company was organized by the sawmillmen, threshermen and farmers and is controlled by these interests.

Pennsylvania Threshermen & Farmers' Mutual Casualty Insurance Company

311 Mechanics Trust Building, Harrisburg, Pa.

WRITE for detailed information, as to costs, etc.

I am interested in having Casualty Insurance for my help and protection for myself, 24 hours in the day. I estimate my payroll

for the year at

Occupation

Name

Address

More Radio Market News For Farmers

A third Philadelphia radio station, WCAU, has added a farm service hour to its broadcasting program. The farm service hour at station WCAU commences at 12 noon and includes news of interest to farmers, crop reports and a special market report on potatoes, sweet potatoes and apples. Farmers in the vicinity of Philadelphia now may receive market reports thrice daily over different stations. From station WFL at 9.50 a. m., are broadcast reports from the Philadelphia and New York markets on Pennsylvania, New Jersey, Delaware and Maryland fruits and vegetables. At noon from station WCAU are given reviews of the daily potato, sweet potato and apple markets covering city markets, f. o. b. markets, shipments, receipts, and prices. At 6.45 p. m. from station WIP a special summary of market conditions, prices and crop conditions on New Jersey, Pennsylvania, Delaware, Maryland and Virginia fruits and vegetables is broadcast.

Each of the above reports is prepared by the market news service of the Bureau of Markets, Pennsylvania Department of Agriculture, and is based upon information obtained directly at Philadelphia and from many branch offices of the market news division of the United States Department of Agriculture and upon Federal State crop reports. The tree-station broadcast offers eastern Pennsylvania farmers the best radio market news to be found anywhere in the United States, market specialists assert.

Other radio stations broadcasting market information supplied by the Pennsylvania Department of Agriculture include KDKA, Pittsburgh; and WKJC, Lancaster.

This Great Hotel Invites You!

The Benjamin Franklin

Philadelphia's Finest Hotel

1200 Rooms
1200 Baths

HORACE LELAND WIGGINS,
Managing Director



CRUMB'S STANCHIONS

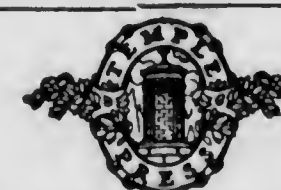
Also Water Bowls
Litter Carriers
Feed Carriers
Steel Stalls
Steel Partitions

Tell me what you are most interested in and I will SAVE YOU MONEY.
WALLACE B. CRUMB
Winthrop W. Dunbar, Successor
Box 2, Forestville, Conn.

High Grade Guernsey and Holstein Dairy Cows

Car load lots a specialty
JOHN S. MATHIS, New Augusta, Ind.

Patronize Our Advertisers



Let Us Design Your Stationery

Horace F. Temple
Printer

Bell Phone No. 1
WEST CHESTER, PA.

Uncle Ab says that loose thinking would be so bad if it were not for the loose talking that goes with it.

NICE

THE NAME TO GO BY—WHEN YOU GO TO BUY PAINT AND VARNISHES

Write for Color Cards and Booklet "Paint Pointers"
EUGENE E. NICE COMPANY, Inc., PHILADELPHIA

HOLSTEIN/ FOR PROFIT!

More Dollars per Cow per Year

The Farmer's Cow Holsteins are large and hardy, yield the most milk and butterfat, consume great quantities of cheap roughages, and produce big, strong calves which are easily raised.
The HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA
230 East Ohio Street, Chicago, Illinois



High Grade Dairy Cows

in HIGHTSTOWN, N. J.

Holsteins—Guernseys—Jerseys
A Specialty

All cows tuberculin tested and sold subject to a 60 or 90 day retest and fully guaranteed in every respect.
Free delivery any distance.

B. ZAITZ & SON

202 Mercer Street
Hightstown, N. J.
Phone 72



Travel On "Uncle Sam's" Pay Roll

\$1900 to \$2700 A YEAR

Mail Carriers
Postoffice Clerks
Mail Carriers
Today, Sure



100 Real Dairy Cows 100

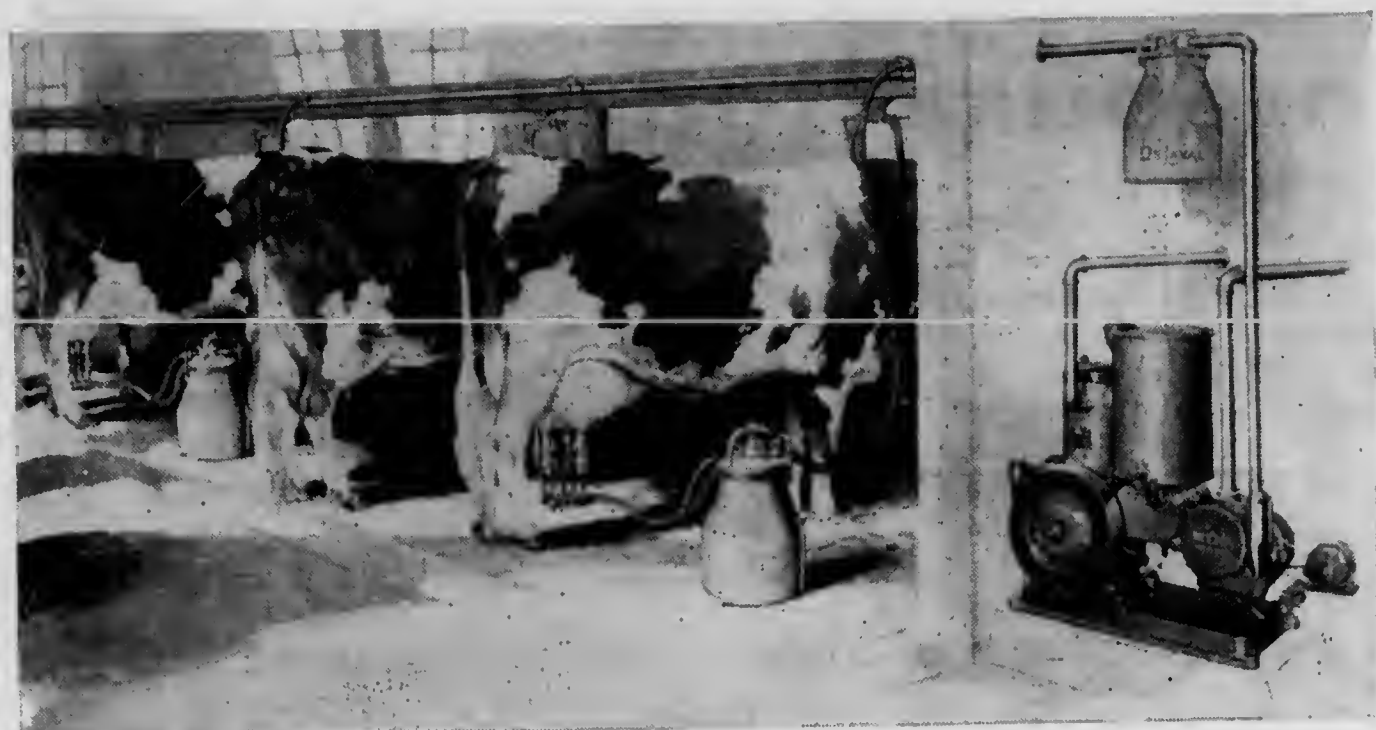
For sale at all times. Tuberculin tested Holsteins, Guernseys and Jerseys. Real Milk Producers. Carload lots a specialty. Priced to sell.

See or Write
JACOB ZLOTKIN
FREEHOLD, N. J.
Phone 330

For Sale—"SELECT DAIRY ALFALFA" for particular feeders. Delivered prices quoted. Prompt shipment. JOHN DEVLIN CO., 192 N. Clark Street, Chicago, Illinois.

From a current issue of the daily press, we note that J. Z. Miller, or Gorga has been appointed agricultural county agent for Cecil County, Maryland.

Mr. Miller succeeds Thomas H. Bartilson, who has been assigned other work by the Department of Agriculture, Washington, D. C. For the past year Mr. Miller has been assistant County Agent for Kent County, Md.



Left—A typical installation of the De Laval Magnetic Milker

A Quick and Easy Way to Increase Milk Production

Milk 3 Times a Day With the De Laval Magnetic Milker

Increase Production 15 to 25%

IT is a definite fact, long established, that three times a day milking under favorable conditions will result in a milk production gain varying from 15 to 25% over twice a day milking. Aside from actual milk gain, with a program of three times a day milking other beneficial effects result. Less udder trouble is experienced, the development of young cows is aided and accelerated, and the increased production effects carry over for a considerable period if the cows are put back on twice a day milking.

Three times a day milking is an efficient and practical method of quickly increasing milk production, and the De Laval Magnetic Milker, through the saving in time and labor that it effects, enables the user to milk three times a day and do it with the same or less help, and often in less time than required by two hand milkings a day. In addition to the gain made through three times a day milking, the uniform, perfect and regular action of the Magnetic invariably results in a greater milk yield, for it is pleasing to the cow and operates in strict accordance with her milk producing organism. The De Laval Magnetic is easy and pleasant to handle. No matter who operates it, its action is always the same—uniform, perfect, fast and clean.

The coupon will bring you complete information. If you desire, a De Laval representative will call and show you how a De Laval Magnetic Milker will enable you to milk three times a day without extra help and thereby enjoy greater yield and greater profits.

Free Trial in Your Own Barn

See For Yourself

Send in the Coupon

The De Laval Separator Company
New York, N. Y. 165 Broadway
Chicago, Ill. 600 Jackson Blvd.
San Francisco, Calif., 61 Beale St.

Gentlemen: I would like to try the ☐ De Laval Magnetic Milker ☐ De Laval Utility Milker (check which) in my own barn, without putting myself under any obligation.

My name is.....

Address.....

No. of cows.....

☐ Check here if you wish literature only.

Milk Producers Review

ISSUED MONTHLY IN THE INTEREST OF THE DAIRY FARMER BY THE

Vol. X

West Chester, Pa., and Philadelphia,

No. 8

THIRTEENTH ANNUAL MEETING

INTER-STATE MILK PRODUCERS' ASSOCIATION

BENJAMIN FRANKLIN HOTEL, PHILADELPHIA, PA.

NOVEMBER 19th and 20th, 1929

Upwards of seven hundred members and delegates of the Inter-State Milk Producers' Association attended the first day's session of the Thirteenth Annual Meeting of the organization, when it was called to order by H. D. Allebach, its President.

Assistant Secretary, I. Ralph Zollers, read the official call of the meeting. He was followed by an address given by Her-

The first eight candidates named were elected by ballot, to serve during the next three years.

A proposed change in the By-Laws of the Association, having to do with specific duties of the Board of Directors of the Association as presented in the call for the meeting, was also voted on by ballot and was adopted by almost a unanimous vote.

The Annual Report of the Secretary, Robert W. Balderston was presented by I. Ralph Zollers. It showed that the Association had 292 Local Units in the Philadelphia Milk Shed and that 1,143 new members had been entered in the membership roll during the past year. A full report is printed on page 7.

The Treasurer of the Association, Robert F. Brinton, presented the report of the Certified Public Accountants, McGee, Fleisher Co., which was approved. A copy of the report is available for inspection by members of the Association, at its offices in Philadelphia.

Frank M. Twining, in charge of the Field and Test Department of the Association, made a formal report of the departmental work. There were 87,078 butter fat tests made during the year. The representatives of this department obtained 1,143 new members and made 5,875 farm visits during the year. Mr. Twining outlined the proposed program of the Field and Test Department during the coming year as follows:

First, to continue to give our chief attention to the check testing of our members' milk; Second, to obtain an increase of 100 new members each month; and Third, to take care of further Herd Improvement Work throughout our territory, and as far as our time and facilities will

Afternoon Session

The session opened with a report of the Secretary of the Philadelphia Inter-State Dairy Council, Robert W. Balderston. The report was read by C. I. Cohee, Assistant Secretary.

A complete report is printed elsewhere in this issue of the Milk Producers' Review.

The Annual Report of the President.

3. Expression of appreciation to the various states, and to the National Congress, for its efforts in eliminating tubercular cattle in the dairy herds.
4. Resolution advocating continuance of dairy research and the further extension of such a program if possible.
5. Resolution, that advisory health councils of our several states, should have included among their members, one person nominated by and technically familiar with the milk industry.

Harry Hartke, Covington, Kentucky, president of the National Cooperative Milk Producers' Federation, Washington, D. C., made an interesting address in which he said in part: "The Inter-State Milk Producers' Association is to be congratulated for its ability to maintain in a peaceful way, the pleasant relationship between dealer and producer, and for what it has accomplished during the past year in providing a service that no other organization can rival, in that it has stabilized the prices of fluid milk to the farmer, so that the distributors have operated on a narrow margin and the public has paid less for milk than in practically any of the large eastern major markets."

Miss Verna Elsinger, of the Ohio Farm Bureau Federation, followed with an address on "Membership Relations."

The Annual Banquet

Nearly 850 members and guests participated in the Annual Banquet of the Association on Tuesday evening, November 19th.

Following an excellent dinner, brief addresses were made by F. P. Willits, Toastmaster; Harry Hartke, President, and Charles W. Holman, Secretary, National Cooperative Milk Producers' Federation;



H. D. ALLEBACH
President

bert M. Packer, Department of Housing and Sanitation, of the Philadelphia Bureau of Public Health, who welcomed the members of the Association to the city.

Following the reading of the minutes of the last Annual Meeting, President Allebach made the following committee appointments:

Nominating Committee

H. B. Shenk, Chester County, Pa., Chrm.
Nathan Hiles, Salem County, N. J.
W. Lake Robinson, Dorchester Co., Md.

Resolutions Committee

Reuben Rife, Franklin County, Chairman
Alfred E. Snook, Mercer County, N. J.
Walter Cook, New Castle County, Del.

Election Committee

Alvin Satterthwaite, Mercer County, New Jersey, Judge
Phillip Price, Chester County, Pa., Teller
L. A. Sutton, Kent County, Md., Teller

Eight vacancies on the Board of Directors occurred by limitation at this meeting and the Nominating Committee presented the following candidates for election. There were no nominations from the floor of the meeting.

H. D. Allebach, Montgomery County, Pa.
S. K. Andrews, Dorchester County, Md.
I. J. Book, Lancaster County, Pa.
Robert F. Brinton, Chester County, Pa.
E. H. Donovan, Kent County, Del.
S. Blaine Lehman, Franklin County, Pa.
Albert Sarig, Berks County, Pa.
F. P. Willits, Delaware County, Pa.
Henry Lucas, York County, Pa.
Linden Caulk, Kent County, Del.



R. W. BALDERSTON
Secretary

permit to take care of our various members' individual problems.

The Association then discussed various problems of interest to the membership.



FREDERICK SHANGLE
Vice President

H. D. Allebach, followed. In this report the general conditions of the milk market in the Philadelphia Milk Shed and the work of the organization as the whole, were presented.

In addition, President Allebach, said, "Based on a weighted price for four per cent milk, delivered F. O. B. Philadelphia, the amount of money paid to our farmers in the Philadelphia Milk Shed, for their milk during the past fiscal year was \$29,256,845.60 as compared with \$28,493,762.06 during the previous year and that the gross amount of milk sold by the Association, during the past fiscal year was 803,318,111 pounds. This represents an increase over the last fiscal year of sixty-two one hundredths of one percent.

The weighted average price of all this milk was \$3.642 per one hundred pounds, based on 4% butterfat content, f.o.b. Philadelphia.

Resolutions

The committee on resolutions presented the following, which were adopted by the Association. (Named by titles only.)

1. Resolution in favor of tariff on dairy products.
2. Resolution warning proposed farmers from changing their plans to enter the dairy field and particularly that of purchasing low producing cows, operating uneconomically, and forcing unmarketable surplus on the market.



ROBERT F. BRINTON
Treasurer

C. H. Lindbach, president, Abbotts Dairies Inc.; Dr. Theodore B. Appel, Secretary of Health, Commonwealth of Penn.

(Continued on page 3)

OUR THIRTEENTH YEAR

Annual Address of H. D. Allebach, President, Inter-State Milk Producers' Association

We have completed our thirteenth year of the Inter-State Milk Producers' Association. We have been trying, year in and year out, to make accomplishments that will help the industry, the producer, consumer and distributor, believing that no organization will succeed unless all the agencies pertaining to the organization prosper alike.

We believe that the feeling between these three interested parties in our territory is as satisfactory as anywhere in the country. This has been brought about by the fact that the price received by the producer has been as high as in any section, while our price to the consuming

of the Dairy Council. As far as we know we are the first farm organization that has ever undertaken quality improvement where a Board of Health did not make it compulsory.

General Farm Legislation
Since Our Last Annual Meeting
During the last session of the Legislature at Harrisburg, all farm organizations of the State of Pennsylvania were united in asking for constructive farm legislation. All the important proposals of the farmers were granted, either in full or to a satisfactory extent. We were able to get an appropriation of over one and a quarter million dollars for the purpose of erecting

production and distribution of milk. These plans are now being worked out by the Department of Health and when put into effect all farmers selling milk to dealers for distribution as fluid milk or table cream will have to meet the regulations.

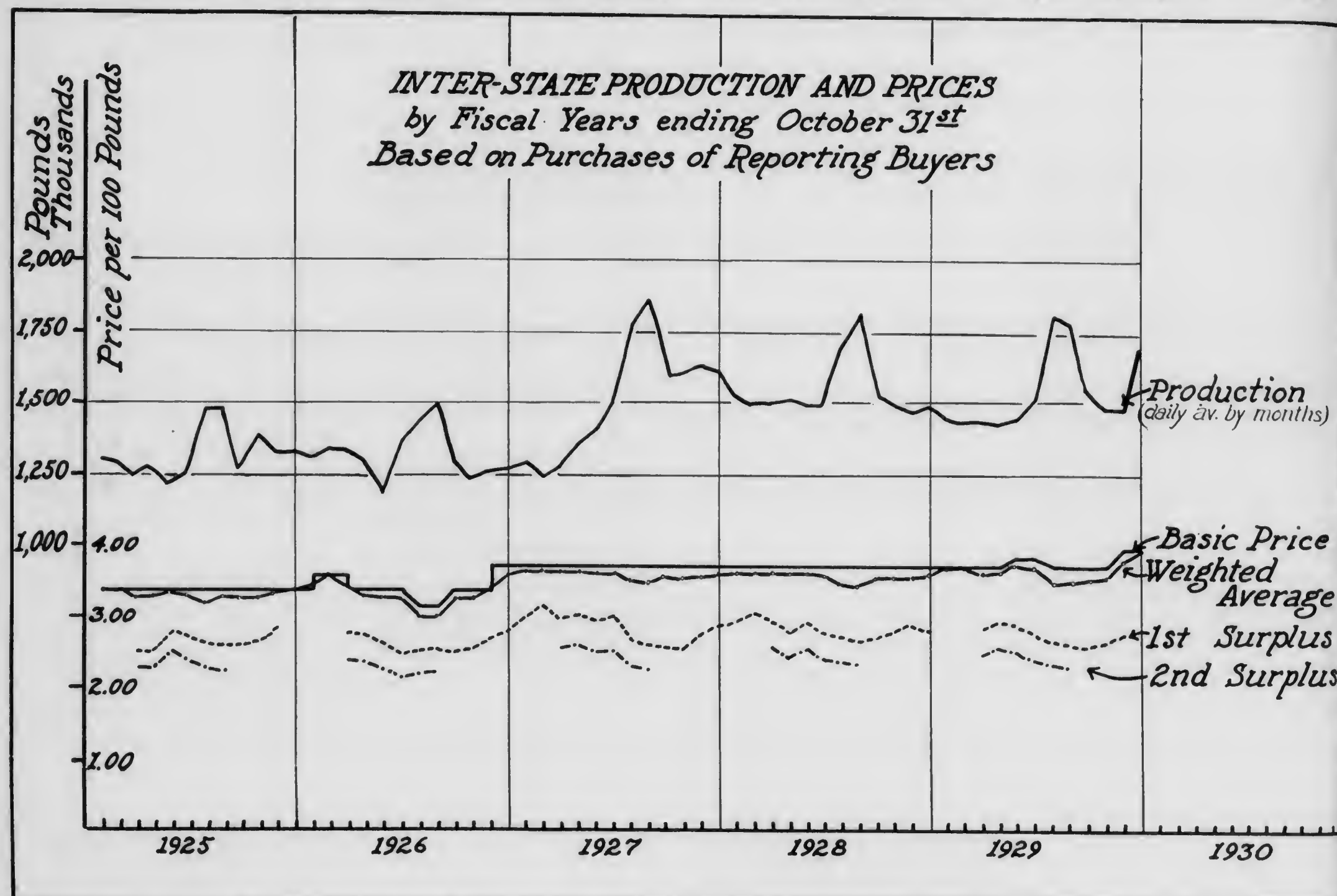
The most important piece of legislation in New Jersey which affected the dairy industry was that increasing the indemnity per cow, in the case of animals slaughtered because they had reacted to the tuberculin test.

The States of Delaware and Maryland made the usual provision for the payment of indemnities for tubercular cattle.

in session, debating over these tariff problems when this report was written.

The farmers of the United States have a common interest in the enactment of a tariff law, which will put, as far as possible, all agricultural products on a parity with products of other industries.

We realize that tariff on one farm product and not on others will in time affect the growers of other farm products, therefore, whether we are dairymen, cotton, tobacco or wheat growers, we realize that the tariff on all these products is as essential to one product as the other. This has been recognized by the farm organizations throughout the United States



The production of milk varies greatly from month to month, season to season, and year to year. A normal result of this variation would be milk prices that vary inversely with production—that is, milk prices that go up when production decreases and that go down when production increases. Such changing prices would be very unsatisfactory both to producers and to consumers. Basic and surplus prices provide the advantages of both fluctuating and uniform prices. The net result of classified prices is to make possible uniform prices to consumers and varying prices depending upon production to producers. Major price changes, both upward, occurred September 16, 1926, and September 1, 1929. Note the response of production to these price increases.

public has been as low as in any section, and the spread, or margin, between the price to the farmer and to the consumer, has been low, and yet the distributor has still been able to make a reasonable profit.

Our Selling Plan has been the outstanding accomplishment in this market and it has been accepted and adopted in many of the other sections of the country. We have been the outstanding organization in the country as far as the advertising of the food value of milk is concerned. We advertise the food value of dairy products through the Philadelphia Inter-State Dairy Council, an organization in which the Inter-State Milk Producers' Association and the co-operating distributors in our territory are equally represented. We have improved the quality of milk through the Quality Control Department

a new exhibition building in which to house our State Farm Products Show at Harrisburg. This building will not be completed and ready for use until the time of the 1931 Show, but the bill has been passed and the contract let. It will be the first building erected in the State for that particular purpose and we believe it will be as fine as the buildings which have been erected in other states.

The usual appropriations were made by the legislature to pay for the cattle that reacted to the tuberculin test in the State. We also secured a substantial increase in the appropriation for Pennsylvania State College.

In addition to the above there was a bill passed giving the Pennsylvania State Board of Health power to work our regulations for the sanitary control of the

The State of Delaware also passed a bill during the early part of the year requiring buyers of milk to issue to their patrons a record of the pounds of milk purchased. This record must be either issued daily at the time the milk is received from the producer or furnished at the end of the payment period. If the latter method is used the record must be itemized as to the amount of milk received each day during that period.

Referring to National Legislation—I want to state that the Farmers' Organizations of the United States, have been united in asking for constructive legislation in the National Congress. It is the first time I can remember that all farm organizations were united behind a uniform program as they were with respect to tariff on farm products. The Congress was still

Federal Farm Board

The National Congress has passed a bill which gave the President power to appoint what is known as a Federal Farm Board. This Board has been appointed by President Hoover and has been in action for some time. Recently the appointments were approved by the Senate. Their aim is to assist the farm organizations so that they might better market their products, and sell to a better advantage than they had in the past.

The Farm Board, in outlining its policies has emphasized three important factors in a successful marketing program for farm products; first, quality; second, regular production to meet the needs of the consuming public; third, the strengthening of the co-operative marketing movement among farmers.

Continued on page 16

THIRTEENTH ANNUAL MEETING INTER-STATE MILK PRODUCERS' ASSOCIATION

(Continued from page 1)

sylvania; Frank Wills, Supplee-Wills-Jones Milk Co.; Miss Verna Elsinger, and Hon. W. F. Schilling. Members of the Inter-State Milk Producers' Association and the Philadelphia Inter-State Dairy Council, presented an entertaining and educational skit, entitled, "The Korner-ketch County Fair."

Second Day's Session

About 250 members and delegates made visits to local milk and ice cream manu-



F. M. TWINING
Asst. Treasurer

facturing plants, under the direction of the Fieldmen of the Association and of the Dairy Council.

An educational session of the Association was held at 10:30 A. M., in the Benjamin Franklin Hotel. F. F. Lininger, Department of Agricultural Economics, Pennsylvania State College, who in company with Hutzler Metzger, Division of Cooperative Marketing, United States Department of Agriculture, made an address on the results of a survey on "Milk Consumption in 1,370 Philadelphia Families." An abstract of this report is on p. 15.

Theodore B. Appel, M.D., Secretary of Health, Commonwealth of Pennsylvania, outlined briefly the plans and program of the "New Pennsylvania Milk Code." He referred to the plans to date:

"Each person selling milk for human consumption must have a permit. These permits will be issued either by the municipality or the state. The department is now preparing plans and programs for the enforcement of the new code. Much work of an educational nature is necessary to obtain a successful application of the law. If the producers and the distributors lend their best efforts in this direction I believe the results will be equally beneficial and that it will result in a safe and sanitary milk supply and an improved condition of the public health."

Hon. W. F. Schilling, member of the Federal Farm Board, and formerly president of the Twin Cities Milk Producers' Association, St. Paul, Minnesota, made an interesting address on the "Work of the Federal Farm Board." Mr. Schilling said in part: "No one denies the farmer the right to organize and today it is a question of what to do with agriculture to bring it up to a parity with industry generally."

"Now the Farm Board has laid down plans and is going ahead under those plans and it's getting somewhere. Many of the requests we receive are outside our province. The enabling act definitely lays down the procedure for the Board. It is not a production organization but a marketing organization, a cooperative marketing organization. It does not loan to individual farmers but rather to farmers cooperatives."

If there is no cooperative or similar organization functioning, establish such an organization. If there is a group of co-operators, each clamoring for the other's trade, get together under a policy that will be helpful to all.

Eventually we are going to see some very fine cooperation in this country. The National Grain Marketing Organization was set up in Chicago only a few days ago. Also a National Live Stock Association. These were formed by the cooperation of many smaller units. Now we are forming



I. R. ZOLLERS
Asst. Secretary

the National Wool Marketing Association in Texas. This organization is going to take care of the wool marketing of America, in fact all the various commodities will be built up along cooperative lines, so that individual units will not compete one against each other in the market.

Following the afternoon session on Tuesday, November 19th, the Directors of the Inter-State Milk Producers' Association held their organization meeting at which the following officers and executive committee members were elected:

PRESIDENT—H. D. Allebach, Montgomery County, Pa.
VICE PRESIDENT—Frederick Shangle, Mercer County, N. J.
SECRETARY—Robert W. Balderston, Delaware County, Pa.
ASSISTANT SECRETARY—I. Ralph Zollers, Montgomery County, Pa.
TREASURER—Robert F. Brinton, Chester County, Pa.
ASSISTANT TREASURER—F. M. Twining, Bucks County, Pa.

Executive Committee

H. D. Allebach, Chairman
E. Nelson James
Robert F. Brinton, Frederick Shangle
E. H. Donovan, A. B. Waddington
F. P. Willits

Ladies Entertainment

The visiting ladies of the members of the Inter-State Milk Producers' Association were entertained by the Philadelphia Inter-State Dairy Council on Tuesday morning, November 19th. The program included the following:

Welcoming Address—Mrs. Robert F. Brinton, Chairman.
"Wellville," a civic project, by Miss Myra Boucher.
A demonstration of school lunches, Mrs. Evelyn Spooner.
An Address by Miss Verna Elsinger, Ohio Farm Bureau Federation on the subject: "The Co-operative Woman."
The Oxford Local, Inter-State Milk Producers' Association, presented an interesting playlet, entitled, "All in a Stew." The cast included Julia Chase Swisher, Harold P. Swisher, and Dora L. Preston.



AUGUST A. MILLER
Editor "Milk Producers' Review"

ANNUAL MEETING OF THE NATIONAL COOPERATIVE MILK PRODUCERS' FEDERATION

The National Cooperative Milk Producers' Federation held its annual meeting at St. Paul, Minneapolis, in the St. Paul Hotel, on November 11, 12 and 13th. It was arranged that the delegates attending this meeting should meet at Chicago on November 10th and travel in special cars from Chicago to St. Paul, so that they could talk over their many problems on their way.

The meeting of the Federation was a three-day session, the first day being set aside for the purpose of the delegates getting together and talking over the national cream, condensed milk and butter marketing situation. This first day's session did not come strictly under the direction of the National Cooperative Milk Producers' Federation, so a chairman had to be selected. R. W. Balderston, Secretary of the Inter-State Milk Producers' Association, was elected chairman for the day, and John Brandt, President of the Land O'Lakes Creamery was elected secretary of the meeting. After discussing the problem of marketing cream and other milk products in a national way, the committee was appointed to work out plans and policies for this work. This committee

met and discussed the proposition from all angles and finally reported back to the body that the proposition was too big to have any definite plans to present at that time and asked that the committee be continued to report at some future date.

After discussing the matter for some time it was finally agreed to leave it in the hands of the Executive Committee of the National Cooperative Milk Producers' Federation.

On Tuesday, November 12th, the annual meeting of the National Milk Producers' Federation was called to order by Mr. Hartke, its President. It was attended by a large group of dairymen from both the Land O'Lakes Creameries and the St. Paul Milk Producers' Association, and, no doubt, the largest delegation yet attending from the different other organizations of the Federation.

After the regular routine business was transacted, a report on the tariff situation was made by Geo. W. Slocom, Milton, Pa., a director of the Dairymen's League Cooperative Association. Mr. Slocom has been chairman of the tariff committee of the Federation on dairy products, and his report was very interesting. A dis-

cussion on the problem of price relationship followed, which was led by Fred W. Sexauer, President of the Dairymen's League. Members of other cooperative organizations took a leading part in this discussion and it was very interesting. A report from D. N. Ceyer, who is manager of the Pure Milk Association of Chicago, in reference to the marketing problems arising from interlocking territories followed. This report was most interesting and many of the other associations took part in the discussion.

The afternoon discussion, dealing with membership problems was led by R. W. Balderston, Secretary of the Inter-State Milk Producers' Association. Many organizations took part in the discussion. Following this the Land O'Lakes Creameries Inc., and the Twin Cities Milk Producers' Association had buses waiting to take the delegates to their large plant at Minneapolis, where the delegates inspected the plant. A splendid banquet was served with Land O'Lakes turkey, the marketing of which the Land O'Lakes Co. has taken over as a by-product and which they are shipping to all parts of the United States. Following the banquet, Secretary

of Agriculture, Hyde made an address. He said in part:

"Dairying today is America's greatest industry. Last year the contribution of dairying to the farm amounted to nearly three billion dollars. The milk produced on American farms last year weighed 60 million tons. The dairy industry accounts for 16 per cent of the gross income of all agricultural pursuits, including both crops and livestock."

Significant, too, is the fact that dairying is probably the best organized branch of American Agriculture.

Our per capita consumption of all dairy products on a milk equivalent basis is now close to 20 per cent greater than in the period from 1912 to 1916. The increased consumption has not been supplied by a proportional increase in the number of cows but mostly by the increase in the productivity of our cows."

He further said that:—

"If the dairy industry had 14,000,000 cows sufficiently efficient to produce the present milk supply, immense savings in feed and labor could be made. Profits

(Continued on page 19)

INTER-STATE MILK PRODUCERS REVIEW

Official Organ of the
Inter-State Milk Producers' Association, Inc.
August A. Miller, Editor and
Business Manager
Frederick Shangle, Advertising Manager
Published Monthly by the Inter-State Milk
Producers' Association, Inc.

Business Office
Flint Building, 219 N. Broad St., Phila., Pa.
24 E. Market St., West Chester, Pa.

Editorial and Advertising Office
Flint Building, 219 N. Broad St., Phila., Pa.
Bell Phones, Locust 5391 Locust 5392
Keystone Phone, Race 5344

Printed by Horace F. Temple, Inc.
West Chester, Pa.

Subscription
50 cents a year in advance
Advertising rates on application

"Entered as second-class matter, June 3, 1920,
at the post office at West Chester, Pennsylvania
under the Act of March 3, 1879."



From every angle the recent Annual Meeting of the Inter-State Milk Producers' Association goes down in history as being the largest in point of delegates from Local Units and the membership on the whole. There were over 215 official delegates in attendance and the number of individual members present was greater than ever.

The reports of the officers and directors, made during the session's meetings portrayed fully the activities of the organization during the past year.

Its programs for the future were definite and had the full cooperation of all who attended.

The number of members, delegates, and guests attending the associations' Annual Banquet numbered nearly 850, the largest the association has ever had. In addition to a program of brief addresses by outstanding speakers in the industry, members of the office force, and field representatives presented an educational and amusing playlet entitled the "Korner-ketch Kounty Fair" and if you were not among those present you certainly missed a big show.

The session on the second day of the meeting was beyond any previous effort, one that was both educational and instructive.

In this issue of the MILK PRODUCERS' REVIEW we are printing a general account of the proceedings of the various meetings, but unfortunately, owing to the lack of space they must, of necessity, be brief.

From a report of a survey of milk consumption in the city of Philadelphia made by representatives of the United States Department of Agriculture, and Pennsylvania State College, it is evident that the consumption of milk per capita in that city has increased since a similar survey was made five years ago.

The increase is reported to be about 11.6%.

In the report of these findings the Philadelphia Inter-State Dairy Council which is carrying on a most efficient campaign is given credit for its part in educating the consuming public in the value of milk in the diet.

In the report of the Executive Secretary of the Dairy Council the enlarged scope and field of its activities was stressed.

In addition to its educational work among consumers the Council has done an outstanding piece of work in improving the quality of the milk produced for distribution in the Philadelphia Milk Shed. Through this work it is believed that the public when supplied with milk of good quality, a high grade of flavor and sani-

tary in character will, in itself, become a greater factor in the consumption of milk and dairy products.

In the report of the Philadelphia Inter-State Dairy Council, printed in this issue of the "Milk Producers' Review" a comprehensive idea of the scope of its activities during the past year may be obtained.

President Allebach, in his review of market conditions has stressed one important feature regarding milk production.

"It is evident," he says, "that any increase in production might result in the breaking of our present price basis." This is a condition that every producer of milk in the Philadelphia territory should seriously consider.

If every producer, or probably, if every third producer, should add to his herd just one cow, it would no doubt, result in a productive rate such as might easily result in enough milk to flood the market.

Extreme caution in your productive rate may save your present basis and bear it in mind, dairymen, this situation will be controlled entirely by your own actions.

December Milk Prices

Inter-State Milk Producers' Association

Milk shipped to co-operating buyers during December, 1929, will be paid for on the basic and surplus plan.

The price of basic milk, 3 per cent butterfat content, delivered Philadelphia, will, subject to market conditions, be \$3.54 per hundred pounds or 7.6 cents per quart.

The price of milk delivered at receiving stations in the 51-60 mile zone, three per cent butterfat content, during December, 1929, will, subject to market conditions, be \$2.96 per hundred pounds, with the usual variations at other mileage points.

The same basic averages as applied in November, 1929, will apply in December, 1929.

Surplus milk will be paid for by co-operating buyers on the average price of 92 score butter, solid pack, New York City, plus 20 per cent, for the month.

Penn State Students Make Marketing Inspection Trip

Thirty-six students, members of the Senior and Junior Marketing classes in Agricultural Economics, Pennsylvania State College, made a three day's tour of inspection of marketing methods and conditions in the Philadelphia district on November 7-8-9, 1929. Accompanying the group were Professors J. E. McCard and F. F. Lenninger of Penn State College, H. A. Hanemann, Bureau of Markets and Hon. R. G. Bressler, Deputy Secretary of Agriculture, Commonwealth of Pennsylvania.

The group visited different Philadelphia terminal markets, various milk distributing and ice cream manufacturing plants, meat packing plants, grain elevators, wool warehouses, etc., etc.

Inter-State Association Visited

The milk marketing methods of the Inter-State Milk Producers' Association were also studied and at a meeting held in its offices brief addresses were made by H. D. Allebach, president; R. W. Balderston, its secretary, and by the following departmental heads: C. I. Cohee, Quality Control Dept. of the Dairy Council; F. M. Twining, Field and Test Department; Frederick Shangle, Vice President, and R. F. Brinton, treasurer, of the Inter-State. A. A. Miller, Editor of the Milk Producers' Review, also made a brief address.

MARKET CONDITIONS

H. D. ALLEBACH

Market conditions have improved a little during the past month, yet there is quite a bit more milk being produced this year by the same number of farmers, than there was last year at this time. This has been largely due to the favorable weather conditions and partly also to the increase in the price paid for milk. I want to warn you again not to increase your production too much, because, if you do, we will flood the market and it will, no doubt, have some reaction on the price.

The holdings of butter in cold storage are the highest at present that they have been for the last five years, and considerably more than the five-year average. Our price of butter during October was the lowest that it has been during that period. This, in itself, should be a warning to producers that we are over-supplying the market with dairy products, as well as having a surplus of milk in our own market.

In addition to this our increase in the production of milk during October was $14\frac{1}{2}\%$ over that of September of this year and $11\frac{1}{2}\%$ over Oct. of last year, which also should be a warning to our producers that they are overdoing the thing.

We hope that, having received this information, our producers will be very careful in their production during the next few months.

The annual meeting of the Inter-State Milk Producers' Association was the largest one ever held by the organization. In addition to this we think the feeling and attitude of the delegates and members toward the operation and development was more cooperative than ever before. This in itself points out that the producers of this territory realize the importance of this organization and what its officers are doing for its members.

The annual banquet of the association was the largest ever held, there were approximately 850 people present. The program was of a high type all the way through and we were certainly fortunate, during the day and at the banquet, to have with us men like Harry Hartke, President of the National Cooperative Milk Producers' Federation; Hon. W. F. Schilling, member of the Federal Farm Board and Dr. T. B. Appel, Secretary of Health of Pennsylvania.

November Milk Prices

Fluid milk prices for November under the Philadelphia Selling Plan, will be paid for by cooperating dealers on the following basis.

Grade B Market Milk, three per cent butterfat content, f. o. b. Philadelphia, is quoted at \$3.54 per hundred pounds or 7.6 cents per quart.

Grade B Market Milk, three per cent butterfat content, delivered at receiving stations in the 51 to 60 mile zone, for October, is quoted at \$2.96 per hundred

pounds. The usual butterfat differentials and freight rate variations, applying to other mileage zones in the territory are shown by quotations on Page 5 of this issue of THE MILK PRODUCERS' REVIEW.

The price of "A" milk under the usual butterfat variations and prices in the different mileage zones in the territory and at "A" stations for November are quoted on page 5 of this issue of THE MILK PRODUCERS' REVIEW.

Surplus Milk

The price of Class I surplus milk for November, three per cent butterfat content, f. o. b. Philadelphia is quoted at \$2.20 per 100 pounds, or 4.75 cents per quart. The price of Class I Surplus Milk, of the same butterfat content, at receiving stations is quoted at \$1.63 per 100 pounds.

November Butter Prices

The past month was marked by the most radical price declines which have occurred in November for many years. In 1920 and in 1921, butter markets broke sharply in November, but under circumstances so entirely different from those influencing this year's declines that they are not comparable. During both of these earlier years markets were becoming adjusted to post war levels.

Part of the November, 1929, slump may doubtless be attributed to market sentiment, but there were other fundamental influences which contributed to the changes which took place. The recent stock market declines no doubt had an influence on butter markets as the market registered almost daily declines. After the first series of breaks, which covered about a week, there was a temporary reaction but this was later followed by later declines. While there was some favorable reaction toward the close of the month, the market still lacked strength.

It may be further noted that supplies of butter are heavy and fully ample. Storage stocks have been considerably above the average. A total stock of 138,324,000 pounds are reported in storage, this represents an increase of 33,000,000 pounds over that of one year ago and about 25,000,000 pounds above the November five-year average. Storage movement in the principal markets since the first of the month suggest the possibility of a greater surplus in December.

Prices of butter, New York City, solid pack, on which the surplus price of milk under the Philadelphia Selling Plan is based, opened the month at $44\frac{1}{2}$ cents. There was almost a steady decline until mid month when $40\frac{1}{2}$ cents per pound was quoted. During the last half of the month there was a gradual upturn in prices which at the end of the month touched 43 cents.

The average price of 92 score butter, solid packed, New York City, on which the surplus price for November was computed was .4284 per pound.

NOVEMBER BUTTER PRICES

	Philadelphia	New York	Chicago
1	45 1/2	44 1/2	42
2	45 1/2	44 1/2	42
3	45 1/2	44 1/2	42
4	45 1/2	44 1/2	42
5	45 1/2	44 1/2	42 1/2
6	44 1/2	43 1/2	41 1/2
7	44 1/2	43 1/2	41 1/2
8	44 1/2	43 1/2	41 1/2
9	44 1/2	43 1/2	41 1/2
10	44 1/2	43 1/2	41 1/2
11	44 1/2	43 1/2	41 1/2
12	44 1/2	43 1/2	41 1/2
13	44 1/2	43 1/2	41 1/2
14	44 1/2	43 1/2	41 1/2
15	44 1/2	43 1/2	41 1/2
16	44 1/2	43 1/2	41 1/2
17	44 1/2	43 1/2	41 1/2
18	44 1/2	43 1/2	41 1/2
19	44 1/2	43 1/2	41 1/2
20	44 1/2	43 1/2	41 1/2
21	44 1/2	43 1/2	41 1/2
22	44 1/2	43 1/2	41 1/2
23	44 1/2	43 1/2	41 1/2
24	44 1/2	43 1/2	41 1/2
25	44 1/2	43 1/2	41 1/2
26	44 1/2	43 1/2	41 1/2
27	44 1/2	43 1/2	41 1/2
28	44 1/2	43 1/2	41 1/2
29	44 1/2	43 1/2	41 1/2
30	44 1/2	43 1/2	41 1/2

Balderston Made Manager of the National Dairy Council

As we go to press we are advised that Robert W. Balderston, secretary of the Inter-State Milk Producers' Association, and executive secretary of the Philadelphia Inter-State Dairy Council, has been chosen manager of the National Dairy Council, succeeding Dr. C. W. Larson.

INTER-STATE MILK PRODUCERS' ASSOCIATION

PHILADELPHIA PRICES in effect for the month of December.

Subject to change whenever warranted by market conditions.

These quotations are based on 3% butterfat milk and a differential of 4 cents for each tenth point and 2 cents for each half tenth point up or down.

This price list is issued with the understanding that it is not to producers and that all buyers using it as a basis of payment to producers shall in addition thereto make the following contributions and payments.

(1) To the Philadelphia Inter-State Dairy Council 2¢ per hundred pounds ($46\frac{1}{2}$ quarts) of all milk bought from any producer at price listed herein.

(2) To the Inter-State Milk Producers' Association 2¢ per hundred pounds ($46\frac{1}{2}$ quarts) of all milk bought from members of said association.

(3) To the Philadelphia Inter-State Dairy Council 2¢ per hundred pounds ($46\frac{1}{2}$ quarts) of all milk bought from other producers at price listed herein.

The funds so derived are to be used by the recipients for improving standards of quality in production and distribution of milk in the Philadelphia Milk Shed; for improvement and stabilization of markets and for an educational campaign advertising the food value of dairy products.

Average

Basic price for December.

Test	Basic	Price
per cent.	Quantity	per
	per 100 lbs.	qt.
3.	\$3.44	7.40
3.05	3.46	7.45
3.1	3.48	7.50
3.15	3.50	7.55
3.2	3.52	7.60
3.25	3.54	7.65
3.3	3.56	7.70
3.35	3.58	7.75
3.4	3.60	7.80
3.45	3.62	7.85
3.5	3.64	7.90
3.55	3.66	7.95
3.6	3.68	8.00
3.65	3.70	8.05
3.7	3.72	8.10
3.75	3.74	8.15
3.8	3.76	8.20
3.85	3.78	8.25
3.9	3.80	8.30
3.95	3.82	8.35
4.	3.84	8.40
4.05	3.86	8.45
4.1	3.88	8.50
4.15	3.90	8.55
4.2	3.92	8.60
4.25	3.94	8.65
4.3	3.96	8.70
4.35	3.98	8.75
4.4	4.00	8.80
4.45	4.02	8.85
4.5	4.04	8.90
4.55	4.06	8.95
4.6	4.08	9.00
4.65	4.10	9.05
4.7	4.12	9.10
4.75	4.14	9.15
4.8	4.16	9.20
4.85	4.18	9.25
4.9	4.20	9.30
4.95	4.22	9.35
5.	4.24	9.40

By order of the Board of Directors

Tenth Floor, Flint Bldg., Philadelphia, Pa.

Issued December 28th, 1929

SPECIAL NOTICE!

Under agreement with cooperating buyers, the price agreed upon for payment to producers for December 1929 milk, which involved two different prices, one applying for the first 19 days at the old price and that applying for the last 12 days, at a lower basic price, has been calculated into an average basic price for the whole month's shipment and payments will be made on that basis, as quoted herewith, by the various cooperating buyers.

Suggestions For the Improvement of Dairy Barns in the Southeastern Section of Pennsylvania

By M. G. Betts, Architect, and M. A. R. KELLEY, Assistant Engineer, Bureau of Public Roads, U. S. Department of Agriculture

Continued from last month

Improvement of Old Barns

Prevention of disease depends largely on observance of the ordinary laws of hygiene prescribed by physicians for human beings and applying with equal force to the care of animals. The principal requisites are (1) An abundance of clean water, clean wholesome food, well regulated bowels. (2) Fresh air night and day. (3) As much exposure to sunlight as possible. (4) Avoidance of chilling and overheating. (5) Avoidance of crowded quarters.

The primary object to be sought in remodeling the barns under consideration is improvement in lighting, ventilation, stall floors, and equipment together with structural repairs necessary to the preservation of the building.

It is not possible within the limited space of this bulletin to consider the conditions in each of the barns surveyed. Suggestions of more or less general application are offered together with a few illustrations of remodeling that has been done and from which others may obtain ideas applicable to their own conditions. Owners of old barns can obtain many helpful suggestions by visiting nearby barns that have been improved, from bulletins of the United States Department of Agriculture, from literature of barn equipment manufacturers, and from manufacturers of building materials.

determining the amount of glass required are, "four square feet per stall," and "one square foot per 25 square feet of floor space." These do not insure adequate lighting unless the glass is so placed as to distribute the light uniformly.

Figure 2 illustrates the effect of wall thickness on light distribution. In A, the first of the morning sun's rays entering through the window strike an assumed in-



6B—Interior of barn showing new arrangement of stalls, substitution of two posts for one which interfered with the stall spacing.

terior wall at a. As the sun advances the light travels along the wall until the last of the afternoon rays strike the wall at b. In B, the earliest and latest light rays strike the wall at c and d respectively if the masonry jams are square. By beveling the inside jams the light distribution on the assumed interior wall is increased to e and f, about equal to that of the light

The number of hours during which direct sunlight will pass through a window depends upon its position in the barn, the time of the year, and the latitude. During the winter months the greatest amount of light will enter through south windows. Southeast and southwest windows will admit 71 per cent, and east and west windows 21 per cent, of the amount of

would receive sunlight. Although this would be helpful so far as light in the interior is concerned, the radiant heat of the sun at that hour would have little effect. After 10.30 a. m. the direct rays of the sun would be entirely cut off by the 12 foot overhang indicated. Thus from 10.30 a. m. until after 1.30 p. m., the period when they are of the greatest benefit, direct rays of the sun could not enter the stable. At noon even, a 6 foot overhang would cut off one-half of the sunlight that normally would enter the window.

Lowering the window would admit more sunlight but this would not be desirable from the standpoint of general light distribution, ventilation in warm weather, and risk of breakage.

In a number of instances owners have materially increased the amount of light admitted to the stables by removing the wall, substituting post and girder construction, and building a new wall with ample windows under the outer wall of the overhang. Where space permitted the stalls were re-arranged so as to place the stock as near as possible

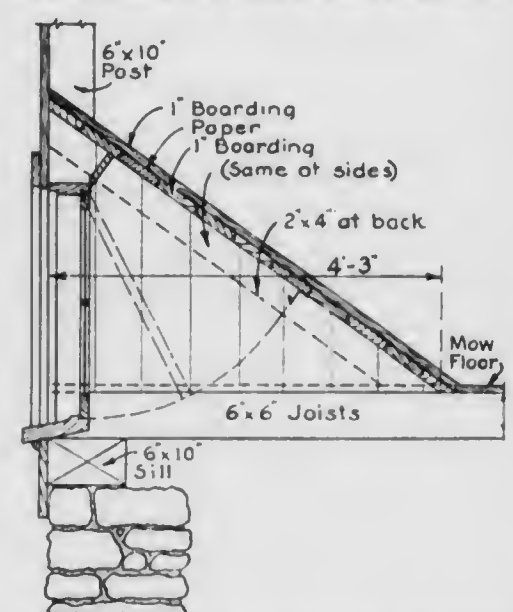


Fig. 4. Method of introducing light into stable from above the mow floor.

to the windows. In other instances the overhang has been removed. If an owner feels that he must have some shelter from the weather in passing from alley to alley, a light shed roof projecting about six feet could be substituted for the overhang, but it should be placed high enough not to shut off winter sunlight from the stable.

Wherever possible, small windows should be enlarged and new windows added. In some instances it may not be feasible to install more than one or two new windows in the walls of the stable. In such cases it is often possible to provide more light by placing windows in the walls of the mow above and cutting openings in the mow floor as suggested in Figure 4. At low outside temperatures the moisture in the air which will gather in the pocket formed by the window housing may condense upon surrounding surfaces causing dampness and rotting of woodwork. To prevent this the window sash, at least those on the north side, should be double and the housing well insulated. A good covering of hay would serve the purpose.

Plate 5B shows how the lighting was improved in another barn where the conditions were somewhat different. The three windows to be seen in Plate 6B were added at the end of the stable. The long narrow windows above the masonry, in A, were inserted between the heavy girders shown in B. B shows how the light entered at noon on an October day. Direct rays of the sun fall on the litter

Continued on page 15

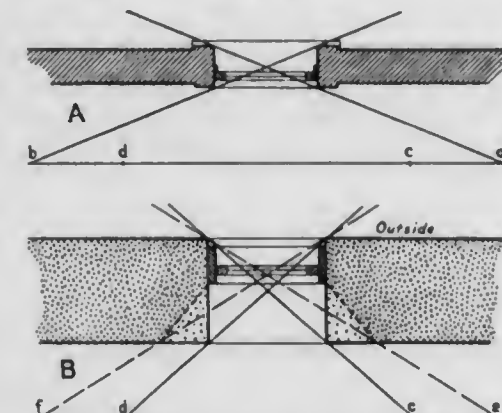


Fig. 2. Effect of wall thickness on light distribution. (A) Plan of a window in a frame wall, facing south, 3 inches thick at the jamb. (B) Window of same width in a 22-inch masonry wall.

Light

Sunlight is a potent agent in the prevention as well as the cure of disease. It lowers the vitality of all germs and actually destroys many kinds. On the other hand it stimulates the growth of body tissue; its value in the curing of rickets is well known. In the barns sunlight exposes dirt which might otherwise be overlooked; it makes for warmth and dryness and reduces the spoilage of feed; it expedites the work as in any other industry. It is hardly possible to get too much light into these old stables.

The principal factors affecting the natural lighting of stables are the number, size and arrangement of windows, thickness of walls, height of ceiling and char-

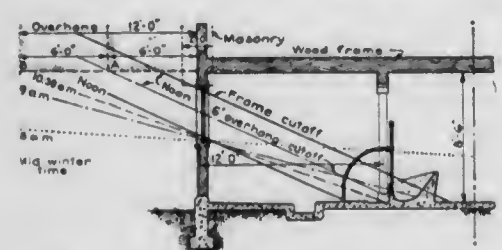


Fig. 3. One-half cross-section of a dairy stable 36 feet wide showing direction of the sun's rays at various morning hours and the extent to which overhanging construction affects the entrance of sunlight into the stable.

acter of wall surfaces with respect to light reflection. Two commonly used rules for

entering through a window in a frame wall. With the removal of the assumed interior wall the sunlight would travel over corresponding areas of floor, gutter and manger surfaces, drying up moisture and destroying disease germs. The same principle of distribution applies to daylight entering a window in any position and irrespective of the direct rays of the sun.

It is obvious that as one means of providing more sunlight in old barns with masonry walls the jambs of existing windows may be beveled. Wherever possible additional windows should be provided. The location will depend upon the existing construction.

It is apparent that more light is ad-

sunlight entering south windows during this period of the year.

The intensity of the sun's effect at noon may be more than twice that at 9 a. m. Overhanging construction shuts out sunlight during the middle of the day when it is of the greatest value. The extent to which this may occur is shown in Figure 3. The dotted, dot and dash, dash and solid lines represent the direction of paths or bands of direct sunlight which, at mid-winter in the latitude of the region under consideration and at the hours indicated, would enter a south window having 9 by 12 inch lights and placed at the usual height in a frame wall, provided there were no obstruction. It is readily seen that at 8 a. m. the entire window opening

Eastern States Farmers' Exchange

Eastern States Seed Service

In carrying out the program for which it was originated, the Eastern States Farmers' Exchange has developed the seed department into one of its major services.

The Exchange was organized to enable farmers through co-operative purchasing of supplies to increase the net income from their farm operations.

Actual experience with co-operative purchasing soon demonstrated to farmers that along with low overhead must go proper selection of purchased commodities if price paid by members and value received were to be in the right balance.

In no article which the farmer buys is this proper selection more important than it is in the case of field seed. In no case is proper selection more difficult for the individual farmer to accomplish for himself working alone or easier to accomplish for himself working with a substantial number of farmers seeking the right seed through employees trained to perform the service for him. The total cost of the individual farmer's seed purchases is a small part of his expenses. The return from the right seed not only shows a profit over the cost of the seed itself, but also over the cost of fitting the field and harvesting the crop, the cost of the fertilizer, the rent on the land, etc. The losses sustained from disappointing yields turn labor, fertilizer, and land rental costs into losses.

Each year more and more farmers recognize the significance of their seed purchases and each year more farmers purchase their field seeds through the Eastern States Farmers' Exchange knowing that the seed it selects and ships them meets all of the strict requirements which this farmer-owned, co-operative purchasing organization has established to protect the interests of its members.

Now is the time to make certain that you ask the Exchange to obtain and set aside for you the alfalfa, clover, alsike, field peas, vetch, timothy, red top, oats, barley, corn, etc., all the seed you will need in the spring. At planting time last year, hundreds of farmers found that their orders reached the Exchange too late. Any old seed can be bought any old time. But to fill eleventh hour orders, the Eastern States will distribute only the seed it knows to be right, and which has not been reserved previously by prudent, far-sighted farmers.

Write the office now for information.

Eastern States Farmers' Exchange

A non-stock, non-profit organization, owned and controlled by the farmers it serves

HEADQUARTERS: SPRINGFIELD, MASSACHUSETTS

Annual Report of the Secretary, Inter-State Milk Producers' Association, Fiscal Year Ending Oct. 31st, 1929.

By R. W. BALDERSTON

The following is the statement of our record of stock issued and transfers during the past year as compared with the record for the previous year:

STOCK RECORD—1929	
Fiscal Year Ending Oct. 31, 1929	
	Number Shares
Stock Certificates issued (gross).....	1156 850.8
Transfers of stock.....	65 64.0
Withdrawals from Organization.....	7 4.7
Deaths Reported.....	50 44.0
Duplicate Certificates issued (originals lost).....	3 3.3
Net issuance of new Capital Stock Certificates.....	1031 734.8

This record shows approximately 107 more new members and approximately 22% more shares of stock signed up than during the fiscal year ending October 31st, 1928. The gross number of stockholders as of the closing of the transfer books previous to this meeting is reported as 27,131.

At the present time there are 292 locals of the association, or five more than one year ago. We are making an effort to consolidate locals for greater efficiency and greater local interest. It is hoped during the next year that this may progress to the point, in sections where insufficient membership or changed market conditions make it difficult to continue to hold regular meetings of locals, at least once or more times a year, the members may be attached to active locals nearby. Some of our locals have been quite active during the past year, holding four or more meetings. Some of the best programs at these meetings and the ones which sustain local interest most fully are those where local speakers discuss problems of interest to the community, as a part of the program of the local. Still others enjoy programs of an entertaining nature as well as those for strict business purposes. The central office has cooperated with many in carrying out projects of this kind.

During the past year the Board of Directors have held six meetings with an average attendance of 97%. The Executive Committee have held meetings at intervals with an average attendance of 96%.

The Board of 24 Directors, during the past year, has been made up of:—

- 15 from Pennsylvania
- 5 from Maryland
- 3 from New Jersey
- 1 from Delaware

The Executive Committee of 7 is composed of:—

- 3 from Pennsylvania
- 2 from New Jersey
- 1 from Delaware
- 1 from Maryland

In accordance with the direction of the Board of Directors, the office is gradually developing a system of membership records that, when finished, will be as complete as modern office equipment and machinery can make it. Members of the association will be interested as they come to the city to visit the office and have this system explained to them. Likewise, the introduction of labor-saving devices will enable us to do much more work for our members with the same office force and to expedite and simplify such matters as the annual election.

In preparation for this annual meeting 125 local meetings were participated in by representatives of the central office. At these meetings 168 locals were represented

Now The New PAGE 4 Cow Milker

Milk 4 Cows At Once

I'll Put One In Your Barn On FREE TRIAL

Just Wheel It In and Start Milking

Free Book on Milking

Send today for our FREE Book on Milking that tells all about it. Get all the facts—the whole story about this new wonder PORTABLE Milker. Send the Coupon today.

User Agents Wanted

Send me your FREE BOOK on milking machines and full details of your free trial, easy payment offer. (10)

Discourages bacteria growth

BACTERIA do not thrive where cleanliness prevails. Therefore, by keeping everything in the cowbarn spotless and fresh with Oakite you will discourage bacteria growth and thus help to insure the purity of your product.

Moreover, daily farm cleaning jobs are economically and thoroughly done when Oakite is used to remove butter-fats, dried-on milk, grease-spots, dirt and grime. Let us send our nearest Service Man to your farm. He will be glad to give you money-saving information on cleaning that keeps down bacteria count. A postal to us will bring him.

Oakite Service Men, cleaning specialists, are located in the leading industrial centers of the United States and Canada. Manufactured only by

Oakite Products Inc., 34F Thames St., New York, N. Y.

OAKITE
Industrial Cleaning Materials and Methods

In order to save time, in many instances where locals were situated near each other, combined meetings were held. Notices of these were all sent out from the central office as part of the regular service which it extends to its locals.

Balance Dairy Ration

The amount of protein necessary in a grain mixture for dairy cows depends to a great extent on the kind of hay fed. With alfalfa hay use a grain mixture containing about 16 per cent of crude digestible protein. If clover hay is fed about 20 per cent of protein is necessary. Timothy hay requires about 24 per cent of protein to balance the mixture properly.

Philadelphia Inter-State Dairy Council

General Offices
Flint Building, Philadelphia
A co-operative movement established for the dissemination of information and publicity pertaining to the production and distribution of dairy products and their food value in nutrition.

Affiliated with the National Dairy Council

Officers
Dr. Clyde L. King, President
H. D. Allebach, Vice President
R. W. Balderston, Executive Secretary
R. J. Harrison, Jr., Treasurer

Departmental Branches
C. I. Cohoe, Director Quality Control Department
Lydia M. Broecker, Nutrition Department
Del Rose Macan, Dramatic Department

The following table presents in detail the prices in effect, month by month, during 1929, on the various classes of milk. Supplementing Annual Report of H. D. Allebach, beginning on page 1

Table I

THE FOLLOWING TABLE PRESENTS IN DETAIL THE PRICES IN EFFECT, MONTH BY MONTH, DURING 1929, ON THE VARIOUS CLASSES OF MILK:

MILK PRICES—PER 100 LBS.—4% BUTTER FAT

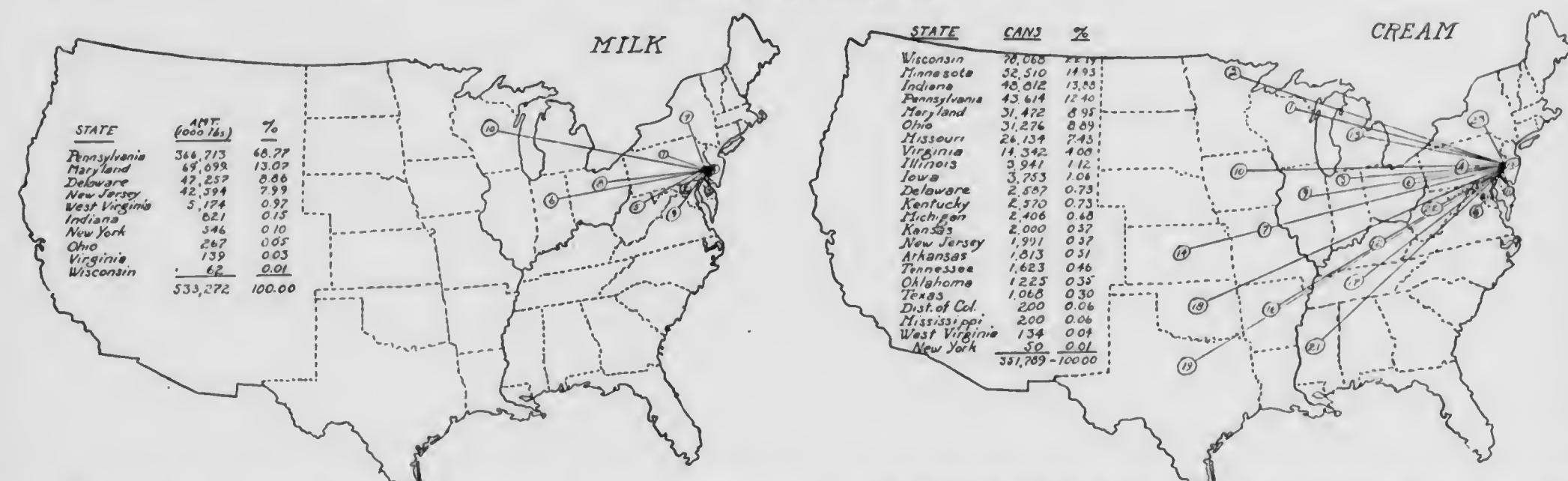
Fiscal Year Ending October 31, 1929

SOURCE:—PRICE LISTS ISSUED BY INTER-STATE MILK PRODUCERS' ASSOCIATION, INC.

DATE OF ISSUE	PERIOD TO WHICH APPLICABLE	BASIC PRICES		PERIOD TO WHICH APPLICABLE	SURPLUS PRICES			
		F. O. B. PHILA.	F. O. B. 51-60 MI.		F. O. B. PHILA.	F. O. B. REC. STA.	F. O. B. PHILA.	F. O. B. REC. STA.
Oct. 29, 1928	Nov., 1928	\$3.69	\$3.11	.....	.....	.....	.....	.....
Nov. 28, 1928	Dec., 1928	3.69	3.11	Nov., 1928	(a)	(a)	(c)	(c)
Dec. 28, 1928	Jan., 1929	(b)	(b)	Dec., 1928	(a)	(a)	(c)	(c)
Jan. 28, 1929	Feb., 1929	3.69	3.11	Jan., 1929	\$2.84	\$2.26	\$2.46	\$1.88
Feb. 28, 1929	Mar., 1929	3.81	3.23	Feb., 1929	2.94	2.36	2.54	1.96
Mar. 28, 1929	Apr., 1929	3.81	3.23	Mar., 1929	2.89	2.31	2.50	1.92
Apr. 29, 1929	May, 1929	3.69	3.11	Apr., 1929	2.73	2.15	2.36	1.79
May 28, 1929	Jun., 1929	3.69	3.11	May, 1929	2.65	2.07	2.30	1.72
Jun. 28, 1929	Jul., 1929	3.69	3.11	Jun., 1929	2.63	2.06	2.29	1.71
Jul. 29, 1929	Aug., 1929	3.69	3.11	Jul., 1929	2.58	2.00	(c)	(c)
Aug. 29, 1929	Sep., 1929	3.94	3.36	Aug., 1929	2.63	2.05	(c)	(c)
Sep. 28, 1929	Oct., 1929	3.94	3.36	Sep., 1929	2.74	2.17	(c)	(c)
Oct. 28, 1929	.....	.....	.....	Oct. 1929	(d)	(d)	(c)	(c)

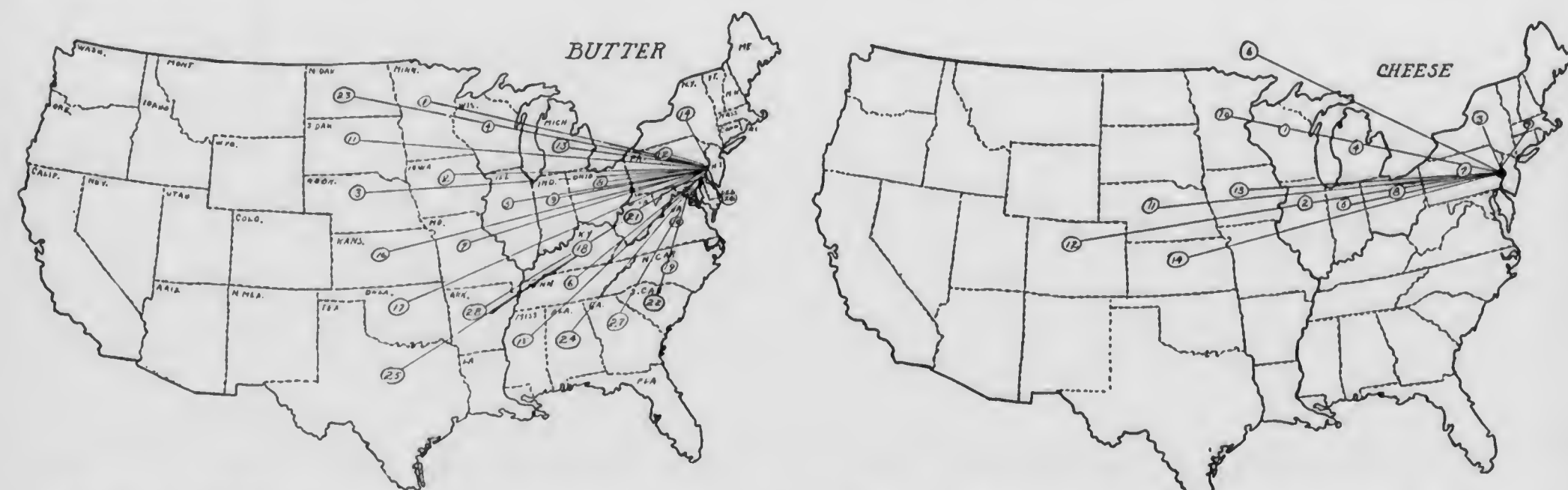
NOTE:—(a) No Surplus prices in effect, November and December, 1928.
(b) No price list issued December 28, 1928, for January, 1929 Basic Milk—Price same as for December, 1928.
(c) Class III or Second Surplus prices not in effect during July, August, September, October, November and December.
(d) No surplus prices in effect October, 1929, by agreement with Buyers and no price list issued October 28, 1929.

SOURCE OF DAIRY PRODUCTS FOR PHILADELPHIA JANUARY-OCTOBER, 1929



Pennsylvania produces more than two-thirds of the milk used in the Philadelphia Metropolitan district. The Inter-State territory comprising in addition to Pennsylvania, Maryland, Delaware, New Jersey, and West Virginia furnished more than 99½ per cent of total receipts.

Fresh cream was received in the Philadelphia Metropolitan district from 23 states. Wisconsin is the leading state followed by Minnesota, Indiana and Pennsylvania in the order named. Improvements in transportation and refrigeration have made fresh cream a national commodity.



Philadelphia takes butter from almost every state east of the great plains area. Minnesota leads by a large margin. Dairy production is expanding in the Southern States and small amounts of Southern butter are shipped Northward.

Wisconsin produces the bulk of cheese received in Philadelphia. Cheese production is confined largely to the Middle Atlantic, Middle, and Central West States. Butter and cheese are national and international commodities.

COMPENSATION AND AUTOMOBILE INSURANCE

We protect the employer as well as his employees. We paid a dividend for 1928 of 18%. If interested, write for particulars.

We write Insurance in the State of Pennsylvania, Only.

We write a Standard Automobile Policy. You can save money by giving us your Compensation, Automobile and Truck Insurance.

Pennsylvania Threshermen & Farmers' Mutual Casualty Insurance Company
311 Mechanics Trust Building, Harrisburg, Pa.

I am interested in having Casualty Insurance. I estimate my payroll for the year at
Occupation
Name
Address

Name and Address
Business Garaged
Mfg. Name Body Year
Trucks Capacity
Serial No. Motor No.
P. Liability P. Damage

Table II

MILK PRICES—PER 100 LBS.—4% BUTTER FAT

F. O. B. PHILADELPHIA, PENNSYLVANIA

Fiscal Year Ending October 31, 1929

INTER-STATE MILK PRODUCERS' ASSOCIATION, INC.

MONTH	BASIC PRICE	I SURPLUS PRICE	II SURPLUS PRICE	AVERAGE PRICE ALL MILK (a)
November	\$3.69	\$2.96	(c)	\$3.689
December	3.69	2.99	(c)	3.689
January	3.69	2.84	\$2.46	3.602
February	3.69	2.94	2.54	3.637
March	3.81	2.89	2.50	3.704
April	3.81	2.73	2.36	3.673
May	3.69	2.65	2.30	3.458
June	3.69	2.63	2.29	3.482
July	3.69	2.58	(c)	3.525
August	3.69	2.63	(c)	3.545
September	3.94	2.74	(c)	3.804
October	3.94	(d)	(c)	3.940
Weighted Averages for the year (b)	3.755	2.702	2.328	3.642

NOTE:—

- (a) Weighted by Quantities, Sold at Basic, I Surplus and II Surplus Prices.
(b) Weighted by Quantities Sold Each Month.
(c) II Surplus Prices do Not Apply to Months so Designated.
(d) I Surplus Prices not in Effect, October, 1929.

Table VIII

DETAILS OF WEIGHTED PRICES 1929*

PER 100 LBS.—4% BUTTERFAT—F. O. B. PHILADELPHIA, PA.

Fiscal Year Ending October 31st

SOLD IN PRICE CLASSIFICATION	PER CENT CLASS SALES ARE OF TOTAL	(1) AVERAGE PRICE DURING YEAR	VALUE PER 100 LBS. TOTAL SALES
Basic	89.48	\$3.755	\$3.360
First Surplus	10.13	2.702	0.273
Second Surplus	0.39	2.328	0.009
All Milk	100.00	.....	(2) 3.642
SURPLUS COMBINED			
First Surplus	10.13	2.702	0.273
Second Surplus	0.39	2.328	0.009
All Surplus	10.52	.....	(2) 2.681

*—It has not been possible to complete the final summary of entire Inter-State sales due to lack of time between the end of the fiscal year and the date of the Annual Meeting. The data presented in this table is therefore subject to final revision. It is based on final reports representing approximately 80 per cent of the annual sales.

(1)—Weighted by quantities sold in each price classification each month.

(2)—Weighted by annual quantities sold in each price classification.

» » THE STORY OF FRIGIDAIRE MILK COOLERS AS TOLD BY OTHERS...

- "Refrigeration cost reduced 60 percent!" says Standard Dairy Co., Des Moines, Iowa.
- "In a year's time our Frigidaire milk cooling equipment paid for itself and left a NET SAVING OF \$1006.71" says Slosek Bros., Ludlow, Mass.
- "Saving of \$439.00 a year in ice cost alone!" says Sunny View Farm, Lexington, Ky.
- "We've never had milk returned from the dairy as it always leaves here at a temperature under 50°" says Charles Marshall, Westboro, Mass.

What Frigidaire has done for others it will do for you—SAVE MONEY—time and work—cool milk and cream quicker—keep Bacteria count low—stop spoilage and waste. . . . Frigidaire costs little and saves much—so much that it practically pays for itself as you pay for it. . . . Mail the coupon today—get the facts and figures.

J. J. POCOCK, INC.

1920 CHESTNUT ST., PHILADELPHIA

J. J. POCOCK, INC.

1920 CHESTNUT ST., PHILADELPHIA, PA.

Tell me how Frigidaire Milk Cooling SAVES MONEY

NAME

ADDRESS

TOWN STATE

.....

TABLE IX

BASIC AND SURPLUS PRODUCTION—1925-1929

By Fiscal Years Ending October 31st

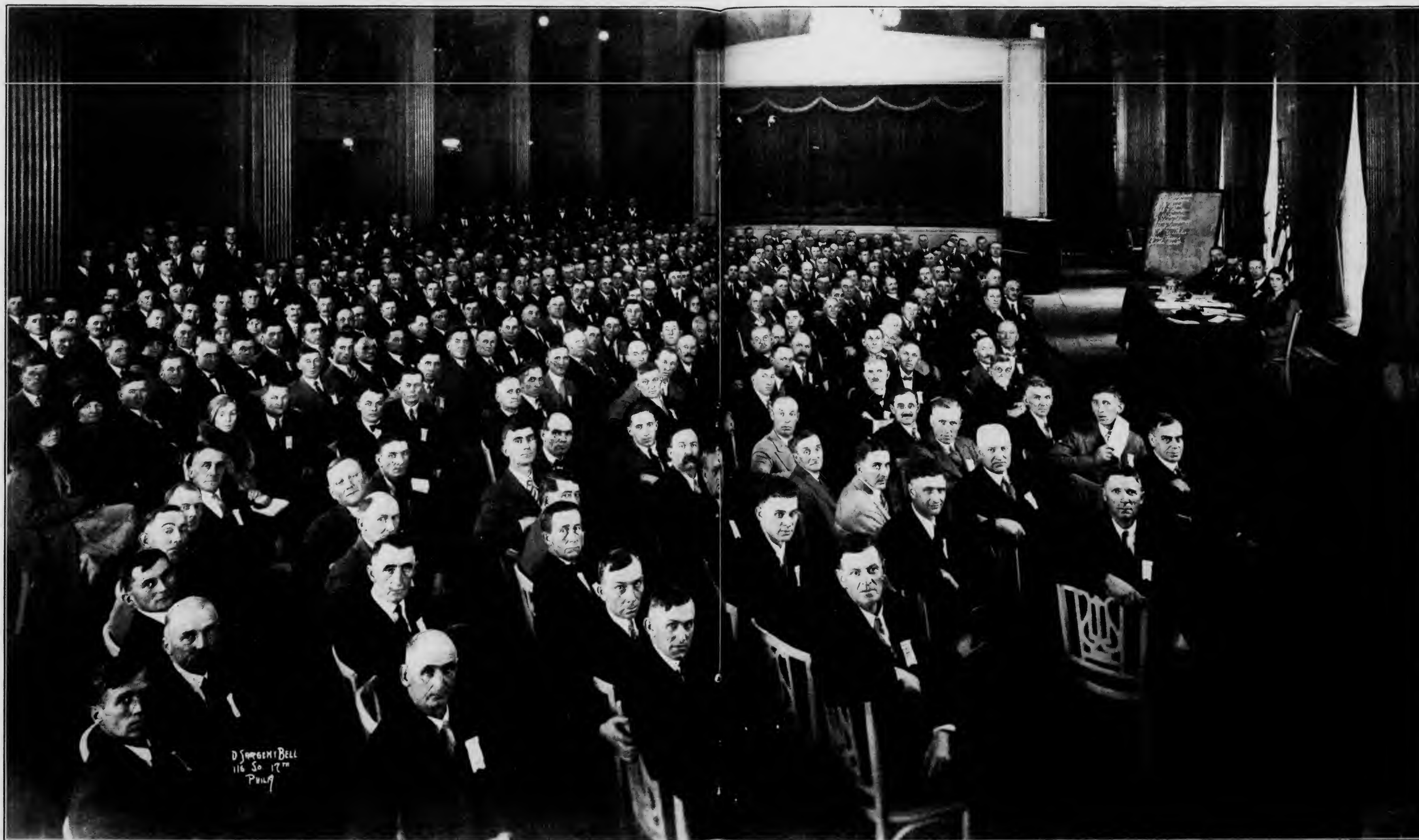
Year	PROPORTION OF TOTAL SALES AS			WEIGHTED AVERAGE PRICES			
	Basic	I Surplus	II Surplus	Basic	I Surplus	II Surplus	Total
	(Per cent)	(Per cent)	(Per cent)	(Dollars)	(Dollars)	(Dollars)	(Dollars)
1925	91.63	7.82	0.55	(1) 3.340	(1) 2.642	(1) 2.267	(2) 3.280
1926	90.05	9.59	0.36	3.385	2.582	2.077	3.304
1927	88.82	10.84	0.34	3.690	2.743	2.267	3.583
1928	86.61	12.93	0.46	3.690	2.799	2.356	3.569
1929	89.48	10.13	0.39	3.755	2.702	2.328	3.642

(1)—Weighted by quantities sold each month in respective price classification.

(2)—Weighted by quantities sold during year in each price classification.



THIRTEENTH ANNUAL MEETING
Inter-State Milk Producers' Association, Inc.
BENJAMIN FRANKLIN HOTEL, PHILADELPHIA
NOVEMBER 19th and 20th, 1929



THIRTEENTH ANNUAL MEETING

Inter-State Milk Producers' Association, Inc.

BENJAMIN FRANKLIN HOTEL, PHILADELPHIA

NOVEMBER 19th and 20th, 1929



Ladies of the I. M. P. A. Meet in Philadelphia

There was a record attendance this year at the special program and luncheon on November 19th, for the visiting ladies attending the annual meeting of the Inter-State Milk Producers' Association.

The guests of this annual affair of the "Inter-State" were drawn from widely scattered parts of the territory in Pennsylvania, New Jersey, Delaware and Maryland. One person reported that she and her husband had left the Eastern Shore of Maryland at three o'clock that morning in order to arrive in Philadelphia in time for the opening meeting. Another had driven in on the preceding afternoon to be sure of being on hand.

oil project conducted last year in the Sanatoga Rural School, Montgomery County, Pennsylvania, Miss Boucher described many of the students activities growing out of it.

After this school had organized itself into a town government with its mayor and various departments the children determined to "Clean Up" the school. They hauled enough dirt to level the yard, no small undertaking. The health department quarantined for colds, and even the teacher did not escape finding a placard on her desk restricting her from mingling at recess with any of the children.

Such contrivances for neatness as a rack

Looking at the Problems of the Cooperative Woman

As women we are everyone interested in the things which will build stronger and better home life, declared Miss Verna Elsinger of the Ohio Farm Bureau Federation in addressing the Ladies Meeting of the Inter-State Milk Producers Association on November 19th.

Sometimes we overlook our responsibility to do our part to see that there is sufficient income to provide these things. While we do a large proportion of the family buying, we are too apt to look upon the selling of our farm produce as purely a masculine affair. This is where woman's part in cooperation comes in.

Three periods in farm cooperative his-

Thirdly, the woman has a natural genius for organization. She already runs the most complicated organization in the world, a home.

Through our children we have a natural interest in the future. This forward-look is a contribution which we can make in the cooperative movement. Instead of the member-farmer we are seeing the member-family. The organization becomes a family affair.

Attitudes are in a great measure affected by the women of the household. See to it that the official papers from the organization are read. In busy seasons, read them yourself and talk it over with the family.



LADIES' GROUP AT ASSOCIATION OFFICES

The meeting this year was undoubtedly one of the most interesting and worthwhile of the sort which have been held.

Program

The program was presided over by Mrs. Robert F. Brinton, Chairman. After an address of welcome from Mrs. Brinton, the following program was presented: "Wellville, the Description of a Civic Project," Myra Boucher, Philadelphia Inter-State Dairy Council; "A Demonstration of School Lunches," Mrs. Evelyn B. Spooner, Philadelphia Inter-State Dairy Council; an address, "The Co-operative Woman," Miss Verna Elsinger, Ohio Farm Bureau Federation, and a play, "All in a Stew," given by members of the Oxford Local of the Inter-State Milk Producers' Association.

A full report of the address given by Miss Elsinger and of the demonstration on school lunches made by Mrs. Spooner is to be found elsewhere in this issue of the "Review."

In discussing "Wellville," a Dairy Coun-

for overhauls were originated and built. A vigorous campaign for more fruit, vegetables and milk for lunch with less candy and hot dogs, resulted in the grocery store across the way having for the first time to keep eating apples in stock. This project of the Sanatoga School was presented at the Montgomery County Teachers' meeting and won first prize.

"All in a Stew," an amusing little play of how a bride discovered that the best of romances can be killed in the kitchen and so sets out to learn the art of feeding a husband, was presented by the following members of the Oxford Local of the Inter-State Milk Producers Association: Julia Chase Swisher, Harold P. Swisher and Dora L. Preston.

Following this play, a luncheon was served to the guests by the Nutrition Department of the Philadelphia Inter-State Dairy Council.

Luncheon

The luncheon which followed the morning program afforded an opportunity for

(Continued on page 14)

tory were outlined by Miss Elsinger. The first and earliest goes back to the days when the men alone took responsibility for the cooperative organization. Then came the realization by the men of the need for women's interested help. Then women's auxiliaries were formed with separate programs. Now we are reaching the third stage when men and women unite in a single program. In some organizations the women are already out in the front line trenches, even directing and molding policies.

There are definite reasons why the woman is needed in the co-operative movement. To begin with, she has a fifty-fifty share in the economic processes, such as dairying. If we are working along with the men in production, are we not concerned with the way in which our products are sold?

Secondly, the woman is the spender of eighty per cent of the farm family's income. It is she who decides what proportion is to be spent in shoes, stockings and food.

Get them out for the meetings. There cannot be a successful organization without good attendance at its meetings. On bad nights you'll find special encouragement is needed to get everyone out.

Boost the cooperative through community meetings of the Grange, the Parent Teacher Association, and your women's club, urged Miss Elsinger. As often as possible get in the cooperative story. You doubtless can arrange for a speaker to come out from the association's headquarters, possibly bringing lantern slides or motion pictures.

You can do much towards bringing in new members. In an Ohio cooperative one woman went out after a membership canvas by the men and brought in eleven new members, because she had presented the women's point of view to the women. Loyalty or disloyalty can be greatly affected by the attitude of the women in the home.

After all is said and done, few things succeed without a soul, or in other words,

(Continued on page 14)

Packing Lunches for the Rural School

Your child's progress at school is closely tied up with good food, and where there is no school cafeteria this involves the problem of the lunch, said Mrs. E. B. Spooner of the Dairy Council in a school lunch demonstration at the recent meeting of the ladies of the "Inter-State," in Philadelphia.

The first point considered may be the lunch container. A brown paper bag has the one advantage of not having to be brought home, but on the other hand seriously limits the articles which may be put in it. A basket is good for a short carry but as it cannot be covered tightly there is risk of the contents being spilled.

A metal box is by far the ideal container. If the regular tin lunch box fitted with a thermos bottle, which may cost two to three dollars, is too expensive an outlay, use any empty tin box of a suitable size. Such a one might be decorated gaily with paint. While it is a disadvantage to the child to not have a handle, such a box has proved practicable. However, those of us who in our own childhood have had to make long walks or an eight-mile ride everyday to reach school can appreciate the comfort of an easily-carried lunch box.

What goes into the lunch-box? To begin with, suggested Mrs. Spooner, remember the necessity for ease of preparation at the busy time of day. For of course, no one would think of making sandwiches the night before. Have a lunch box shelf on which you keep the clean box, waxed paper, string and your other accessories. This will save frantic scrambling.

Never cut crusts off from the bread. The crust provides exercise for childhood teeth. The bread may be cut at different angles after the sandwich is made, and there are various kinds of breads to be used. The brown breads have more food value. Be generous with the spreading of butter.

A salad may be packed in a small jar. A cold cream jar is a good individual size. One of the members of an Inter-State local has made the excellent suggestion to put several thicknesses of waxed paper over the top of the jar before fitting on the lid to prevent danger of leaking.

Napkins furnish an opportunity for color. While paper ones are sanitary and involve no laundrying, the nicest lunch box napkin of all is made of small squares of bright Japanese crepe stitched three-quarters of an inch from the edge and ravelled. These little napkins may be made for six cents each.

Often salt is required in the lunch. Some one in your family probably has an old dental floss tube which is admirable for the permanent salt container to be kept handy on the lunch box shelf.

Now for the menu itself. The three S's of the lunch box have been called sandwich, sweet and a surprise. To make this complete we must add a salad, fruit and milk. If you have a small thermos bottle, soup or cocoa is a cold weather comfort. There is nothing to equal a surprise for keeping the children from tiring of school box lunches. Someday instead of cutting a roll lengthwise, halve it across the center and scoop out part of inside bread. Fill space with salad, and to make more attractive top the half with a sprig of parsley.

Try cutting carrots thin and spreading with cheese, or cutting them in thin strips. Crackers may be spread with cheese or with cinnamon, sugar and butter. Raw prunes are delicious stuffed with peanut butter. In making lettuce sandwiches be careful to trim leaves neatly.

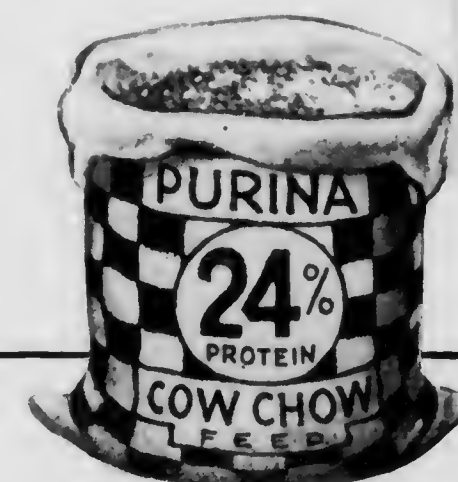


ONE QUART FREE!
from EVERY COW EVERY DAY

THINK OF IT! One quart free from every cow every day! Something worth reading again when you consider what it means and from where it comes. This statement is in the report of the national survey of 323,801 cows on the cost of making milk. These cows, fed on all kinds of feeds, reveal that Purina Cow Chow makes one extra quart per cow per day over all other feeds . . . and at no extra cost!

Not one penny extra! You'll be quick to see the reason why when you glance at today's Cow Chow price. It's low! Add to this the good news that cows actually eat less of Cow Chow in a year's time because it is all feed. And still they make those extra quarts of milk . . . quarts that are free . . . clear profit . . . to be had for the milking!

Make this survey mean more than interesting reading . . . make it mean more money in your pocket. The survey results are sound enough to take advantage of now! Put Purina Cow Chow before your cows and milk the free quarts. They are yours for the asking!



BARGAIN DAY!

The day the Checkerboard car rolls into town . . . that's bargain day! Save money by paying cash for your feed and by hauling it yourself . . . direct from the car.

Inter-State Luncheon Recipes

around then bake about 25 minutes, basting occasionally with butter.

Stuffed Peppers (Serves six)

- 3 large green peppers
- 1/2 lb. cooked meat
- 1/2 onion
- 2 tbsp. chopped parsley
- 1 tsp. salt
- 1/4 tsp. pepper
- 1 c. dry bread crumbs
- 3 tbsp. butter
- 1/4 c. tomatoes

Cut peppers in half lengthwise, remove seeds and veins and parboil 10 minutes in salted water. Drain. Chop meat, onion and parsley fine. Add seasoning, bread crumbs, tomatoes and melted butter. Mix thoroughly. Fill peppers. Cover with bread crumbs. Pour hot water

Diced Potatoes with Cheese Sauce (6 servings)

Pare and dice three large potatoes. Cook 30 minutes in boiling salted water.

Cheese Sauce:—

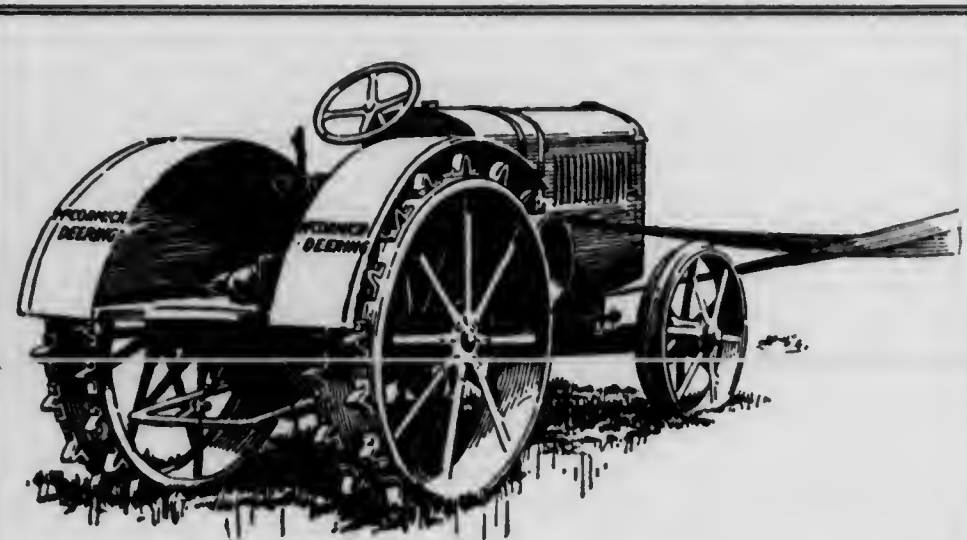
- 1 c. milk
- 2 tbsp. flour
- 1 tbsp. butter
- 1/4 lb. sharp cheese

Melt butter in top of double boiler. Add flour and remove from fire. Mix and add milk slowly, returning to fire. Add cheese, stir frequently to keep from lumping. When cheese is melted and sauce has thickened, pour over potatoes and serve piping hot.

Apple in Bloom Salad (6 servings)

- 6 small under ripe cooking apples
- 3/4 c. sugar
- 2 c. water
- 1/2 c. cinnamon candy
- 1/4 lb. Phila. Cream Cheese
- 3 tbsp. chopped nuts
- 1 tbsp. chopped green pepper
- 1/4 tsp. salt

Pare and core apples. Cook sugar, water and cinnamon candy together until sugar dissolves. Drop apples in carefully and cook just until tender. Be careful not to over-cook. Remove, chill and stuff with cheese mixture. Place on crisp lettuce leaf and add 1 tbsp. of mayonnaise or cooked dressing.



Plan Now for a New and Bigger Year

IT IS WINTER. A new year lies ahead. Snow glistens like a blanket on the fields, and underneath lie the secrets of next summer's harvests. In the spring, Nature will wake the life in the soil, but man will direct it. Nature's methods will be as they have been for ages, but man will harness them with methods that are ever newer, ever better.

With the wizardry of agriculture he is always improving the things he has done in America. He goes on compounding farm science and knowledge, motive power and mechanical equipment, managing his farm-factory with greater ease and efficiency. The more he works with his brains, intelligently, the less he toils with his hands. His own muscle power is as limited as it was in Adam's time and the hand work of hired hands is very, very costly. He puts the burden onto unfeeling machines—broad-capacity, fast-working, cost-reducing, profit-making equipment and power. He is abreast with the best of them and he competes with the world. He forces the issue in farming and profit comes his way. We are glad to be identified with present-day agriculture as dealers in modern power and machines. Ask us to make helpful machine suggestions. No obligation.

International Harvester Company OF AMERICA

Philadelphia

Baltimore

Harrisburg

Ladies of the I. M. P. A. Meet in Philadelphia

(Continued from page 12)

old friends to visit together and for new acquaintances to be formed.

The entire arrangement of the luncheon was most informal, with much "visiting around" by the ladies. The desks of the offices of the "Inter-State" were attractively decorated with yellow and black crepe paper and candles and served as tables.

The luncheon was prepared in the kitchen laboratory by the Nutrition Department of the Dairy Council, supervised by Miss Dorothy Hanly, and was served by the girls of the office staff of the "Inter-State" and the Dairy Council.

Several unusual dishes were used in the luncheon menu which follows. As you may like to try the recipes for these yourself, they are given on page 13 of this issue of the "Review."

Luncheon Menu

Stuffed Peppers
Diced Potatoes with Cheese Sauce
Buttered Spinach
Apple in Bloom Salad
Brown Rolls and Butter
Ice Cream with Chocolate Sauce
Milk Cake Coffee

Keep Farm Accounts

Progressive farmers find that accounts kept on their operations reveal where profits are made and losses incurred. Changes in organization and operation can be made profitably only when sufficient information is available to justify them. Your county agent will tell you how to start your book-keeping.

Buy certified seed early. The county agent has a list of sources.

Looking at the Problem of the Cooperative Woman

(Continued from page 12)

without a spiritual motive to give it impetus. It is part of woman's responsibility to interpret the ideals of a cooperative. Men in the pressure of everyday work may lose sight of the fact that the struggle is not for the dollar alone, but that the rural home may give its children every possible opportunity for their best development.

The struggle is therefore one for wide-awake community churches, community beauty and the best of schools. These are the things which are the spiritual motives back of the cooperative organization. The larger and surer income which comes through cooperative marketing is an avenue to bigger lives for farm families.

Oakite Holds Managers' Meeting

The 110 District Managers and Representatives comprising the field organization of Oakite Products, Inc., met in the general offices in New York from November 20th to 23rd, on the occasion of their 21st Year Annual Sales Conference.

Every section of the United States and Canada is represented by this organization, so that the daily discussions covered every conceivable kind of cleaning work. There was ample opportunity for exchange of ideas on all subjects relating to cleaning. This was augmented by special laboratory demonstrations made by the office Technical and Laboratory Staff, as well as by those men who have made certain fields their special study.

"And what," asked the teacher, "is poetry?"

"Poetry," answered the class bright boy, "is chickens."

Report of the Secretary, Philadelphia Inter-State Dairy Council

By R. W. BALDERSTON

The need of a yard stick to measure the activities of the Dairy Council with respect to the sale of milk, is apparent to everyone. We know that a great amount of effort, time, and publicity is put forth with a view of increasing the consumption of milk—and unless there is some measure to go by we will be at a loss to know just how effective the work of the Council has been.

We are fortunate at this time in that 1929 is the completion of a five year period following the survey of consumption made in 1924. In 1924 it was apparent that a very important gain had been made in milk consumption. It is with a great deal of satisfaction that we are able to report 11.6% increase in the per capita consumption in 1929 over 1924. While the increase has not been nearly so marked as was the case in the five years prior to 1924—substantial gains have nevertheless, been made. Appreciating as we do, that we are nearly reaching the saturation point as we increase consumption, any gains are very encouraging.

A report of the survey just completed will be made at this meeting by Prof. Lininger of the Penna. State College, so that it will not be necessary to dwell on it further here. One phase of this survey deserves special consideration, however, in that it indicates more effective methods by which the Dairy Council work may be carried on.

Among the outstanding accomplishments of the past year are the results obtained through salesmanship schools for milk wagon drivers. One hundred and ninety-two such sessions with a total attendance of 6620 have been held. This means that 662 drivers on an average, have attended the entire ten sessions of the school. As a result of the greater knowledge on the part of these salesmen, of the product which they are handling, substantial gains in sales have been made.

The employment of Happy Goldsmith on a full time basis by the Dairy Council gives us an effective means of reaching the boys and girls of High School age—the most difficult group with which we come in contact. It is not uncommon to find a cafeteria in a school selling 100 extra bottles of milk as a result of Happy's teachings.

In the field of literature we have distributed during the past year 1,198,966 individual pieces of Dairy Council matter, 593,610 people have been reached directly by Dairy Council employees, while an additional 212,000 have been reached by Dairy Council films.

In the field of Quality Control work we find that there are over 16,000 dairies under Dairy Council inspection, approximately 30,000 general inspections have been made in the past year—and a total of nearly 150,000 since the Dairy Council Quality Control Department was organized. Seventy-two thousand one hundred and fifty bacteria counts have been made, largely of "B" milk supplies. Seventeen receiving stations have had semi-monthly direct bacteria counts made of the milk supply for the past year, and a decrease of approximately 50 percent in the number of high counts at these seventeen stations, have been corrected.

Among the new literature which is now available we have "What's Your Score," and "Happy Inn." The former a record sheet for developing health habits for boys of Junior High School age. The second a report of particularly interesting Junior High School cafeteria work. "When the Cows Come Home" will be off the press within the next month—it is a new

and entirely different story of producing clean milk. "Notes to a Milkman" which is also on the press, is a summary of milk salesmanship work.

Perhaps at no point in the history of the Dairy Council has it been more important to stress the value of increasing the consumption of dairy products, than at the present time. Milk and dairy products are facing the severest kind of competition from very highly advertised foods. It is essential that if we are to retain the consumption of dairy products, to other foods, our activities must be fully maintained. Dairy producers everywhere can assist this program by consuming large quantities of their own products. The generous use of all dairy products, and particularly of butter is very necessary at this time if present favorable marketing conditions for milk are to be continued.

The accounts of the Council have been audited by McGee, Fleisher and Co., Certified Public Accountants and are available for inspection at our offices, by those who cooperate with the organization.

General statistics of the Philadelphia Inter-State Dairy Council for the period from November 1st, 1928 to October 31st 1929, are given below.

Quality Control Department

No. Inspections.....	29,377
No. Sediment Tests.....	25,602
No. Meetings.....	113
Reels Movies.....	119
Attendance.....	25,590
Miles Traveled.....	250,661
No. Man Days, Fairs and Exhibits.....	92
Bacteria Tests (Direct Count).....	72,150

There are approximately 16,225 dairies under inspection.

Up to October 31, 1929, there have been 147,976 inspections made since the Quality Control Department was organized.

During the year 345 dairies were discontinued for failure to comply with the Dairy Council Sanitary Regulations, and 130 dairies were reinstated.

Nutrition Department

Interviews.....	1,323
Stories.....	1,523
Lectures.....	194
Slide Talks.....	167
Moving Pictures.....	87
Food Demonstrations.....	104

Attendance:

Children.....	203,910
Adults.....	24,761
Total.....	228,671

Health Dramatic Department

No. Performances of Plays.....	260
No. Rehearsals.....	662
No. Talks.....	771
Special Plays.....	9
Slide Talks.....	156
Short Plays sent out without a Director.....	15
Contacts.....	85
Castings.....	135

Attendance:

Children.....	362,093
Adults.....	12,002
Total.....	374,095

Publicity Department

Literature (Pieces).....	1,198,966
No. Displays of Movies in Theatres.....	1,238
Estimated Attendances, Theatres.....	132,800
Displays of Movies in Schools and Organizations.....	496
Approximate Attendance.....	80,000
Mechanical Devices (days).....	806

Suggestions for the Improvement of Dairy Barns

Continued from page 6

alley and gutter while the general lighting of the stable has been greatly improved. More windows could have been added to advantage in the masonry wall as the stable is unusually wide, 40 feet, and high. Since the barn is of the bank type it was not possible to provide windows on the bank or dark side except at considerable cost for excavating so that even with the added windows the lighting is not what it should be.

The metal stanchions shown in 6-13 replaced old wooden stall construction which it was impossible to disinfect properly and which required frequent whitewashing. Hay racks extending to the ceiling above the mangers prevented the diffusion of light from windows and seriously interfered with the air circulation necessary to the removal of dampness.

The benefits derived from the installation of additional windows are greatly impaired if the glass is allowed to become and remain covered with cobwebs and dirt. A very little dirt will reduce the light to one-half or one fourth of that passing through clean glass. Windows should be kept clean particularly during the fall and winter months when sunlight in the stables is of the greatest importance.

Light entering through windows strikes wall and other surfaces which, if of proper character, reflect it in various directions. In this way dark places not exposed to the direct light are benefited. All interior surfaces should be made as smooth as possible and kept well painted or white-washed. Not only does whitewash improve the lighting of a barn but each new coat has some value as a disinfectant as it tends to prevent or retard the growth of bacteria and mold. One third of the barns of shippers supplying milk to one station were found to be badly in need of whitewash.

The application of whitewash with a hand brush is a disagreeable task, particularly on overhead surfaces. A power sprayer scours and cleans the surfaces and applies the whitewash quickly and thoroughly. Places difficult to reach with a brush are easily sprayed. In some sections of the country spraying outfits are owned by cooperative associations and are available to members. In one locality visited during the survey whitewashing was being done under contract with the aid of a power outfit.

(To be continued)

Report of the Quality Control Department Philadelphia Inter-State Dairy Council

The following is a report of the work done by the Quality Control Department of the Dairy Council for the month of October, 1929:

No. Inspections Made.....	2675
Sediment Tests.....	3157
No. Permanent Permits Issued.....	136
No. Temporary Permits Issued.....	59
No. Meetings Held.....	12
Attendance.....	884
Reels Movies Shown.....	3
Bacteria Tests Made (Plants).....	46
No. Miles Traveled.....	22458

During the month 46 dairies were discontinued from selling for failure to comply with the regulations—12 dairies were reinstated before the month was up.

To date, 147,976 farm inspections have been made.

A New Survey of Milk Consumption in 1370 Philadelphia Families—1929*

By F. F. LININGER

Department of Agricultural Economics,
The Pennsylvania State College

and

HUTZEL METZGER

Division of Co-operative Marketing
U. S. Department of Agriculture

Milk drinking habits of Philadelphia families have changed decidedly in the last five years. A much larger proportion of persons are reported to be drinking milk every day. Without exception, among all nationalities and among all ages, the milk drinking habit is being acquired.

The 4-P's of Milk Consumption are Population, Prosperity, Prohibition and Publicity

An increase in population, and a greater per capita consumption of milk among all nationalities has increased the consumption of milk in Philadelphia. People who are prosperous consume more milk than poor people, while the milk drinking habit has doubtless been stimulated by prohibition. Effective publicity, however, helps to inform and educate city consumers to the use and economy of fresh milk in the diet. Especially through the schools is this type of education forceful and effective.

An increase in the per capita consumption of fluid milk in Philadelphia of 11.6 per cent in the last five years is shown by comparison of a recent house-to-house survey of 1370 families made by the Pennsylvania State College and the United States Department of Agriculture and a similar survey made by these agencies in 1924. The increase in consumption is further evidence of the effective work that is being done by the Philadelphia Inter-State Dairy Council.

Actual per capita consumption of milk in Philadelphia purchased from all sources was approximately .68 pints daily, of which 92 per cent was purchased from regular distributors, and the remainder from stores, at school, business and other sources.

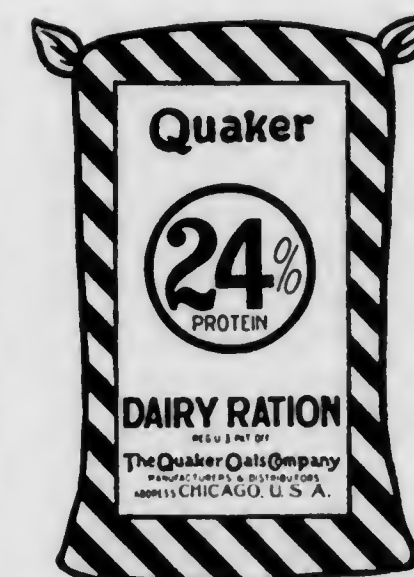
Income is the largest single factor influencing consumption, and the well-to-do families invariably consumed more milk per capita than those in the poorer groups. As the size of family increased, the reported per capita consumption of milk decreased. This was the result, in spite of the fact, that the percentage of children in the larger families was considerably greater. There is, however, a relationship between the size of family and the income group in which the family is located.

Both the actual consumption and increase in consumption varied in the different nationalities. The Jewish families were large users of milk five years ago, as well as at the present time. They showed an increase of only five per cent in consumption during the five years, while Italian families reported an increase of 29 per cent and colored families of 20 per cent over five years ago. Among the Italian children under 12 years of age, 29 more out of every one hundred and 28 more out of one hundred between 13 and 18 years of age reported drinking milk every day than reported this fact five years ago.

The ranks of milk drinkers are also being recruited from the adults of every nationality. Compared with 1924, there are reported now out of every hundred, among the Italian families, 15 more adults drinking milk every day; 12 more in native



The Things that Milk and Profits are Made of



EVERY ingredient, regardless of where it is grown, is available to the resources of The Quaker Oats Company. And the experts under whose direction Quaker Dairy Rations are produced have no restrictions save one. That is, they must provide you with feeds that make milk, delivering maximum production and maximum profit. Quaker 24% Dairy Ration is an excellent, safe, always-uniform mixture. It will serve you well. The Quaker Dealer in your community is at your service.

THE QUAKER OATS COMPANY, CHICAGO, U. S. A.

Quaker Sugared Schumacher—is the complete carbohydrate feed; combines perfectly with any Quaker high protein concentrate (21%, 20% or 16%). A choice feed for all young or dry stock; an entire grain ration for horses, steers, lambs and swine

BUY QUAKER FEEDS IN STRIPED SACKS

white and colored families; and 10 more in the Jewish families.

In advertising, dealers wagons were mentioned most frequently as a place where the housewife had seen milk advertised, with newspapers, bill boards and street cars, as important places, but mentioned less frequently. Movies occupied a relatively unimportant place.

Quality, health and cleanliness made appeals most frequently to housewives. Fifteen per cent of all the housewives reported that they had heard the use of milk advertised in schools through the medium of leaflets, plays, stories and cooking demonstrations.

* Complete report will be printed in a later issue of the MILK PRODUCERS REVIEW.

"Money" In Lost Milk Bottles

Do you use milk bottles for jam, kerosene, paint and other household articles? Perhaps you use them for flower vases, or in numerous other ways. If they get too dirty, probably they are thrown out with the ashes or trash.

Such a procedure is far too common, says the Bureau of Dairy Industry, United States Department of Agriculture, and adds materially to the consumer's milk bill. The annual milk-bottle bill of the Nation is close to \$30,000,000 the bureau says, and at least \$20,000,000 of this is lost occurring after the bottles leave the dairy.

OUR THIRTEENTH YEAR

ANNUAL ADDRESS BY H. D. ALLEBACH, President

(Continued from page 2)

Our organization has been endeavoring to carry these principles into effect ever since it was organized. The quality improvement work in our territory has been going on for eight years. Wonderful progress has been made in the improvement of the quality of milk during that time. As may be noted in my report of last year, on June first, 1928, every producer who was selling milk to a co-operating dealer in our territory was required to have a Permanent Permit.

The State Board of Health, under the authorization of a bill passed by the last Session of Legislature, is now developing a program, one provision of which will require that any dealer distributing milk in the State of Pennsylvania must purchase his entire supply of milk from farmers under inspection. Satisfactory proof of inspection must be submitted to the Secretary of Health by the dealer upon demand. Licenses will be issued to dealers meeting the provisions of this law.

It will also tend to bring the producers and the distributors as well, who may be lax in their methods, up to a point of better production and better merchandising and by this universal improvement in the supply we will no doubt increase the sales, because the consuming public wants a good product and we believe will use more of it.

No doubt this State wide program will go into effect about January first, 1930. When it does, all farmers producing milk for sale as liquid milk in Pennsylvania, will have to meet practically the same regulations, whereas, up until that time, only the farmers shipping to co-operating dealers have been compelled to meet any farm regulations.

Regular Production

The Philadelphia Selling Plan which went into effect in 1919, has changed our production from a large surplus in the summer to practically a regular production the year through. I am not going into the details of this plan, since it has been explained in our Review many times but we believe that it has brought about results. This plan has been changed from time to time to meet the immediate demands of the market.

Better Organized Farmers

In order to market their product intelligently, the farmers must be organized locally, regionally and nationally. The milk producers of this country have organized, and we believe that we have one of the strongest farm organizations in the country today. In the Philadelphia Milk Shed we are organized locally, having our locals in each territory. We have our central organization, known as the Inter-State Milk Producers' Association, which acts for all these local organizations. We are a member of the National Co-operative Milk Producers' Federation, which covers the whole United States. With this tie-up we have been able to accomplish many things and were fully ready to co-operate with the new Federal Farm Board.

Basic Prices

The basic price of milk for the year 1929 has been higher than any time since 1923. Our basic price f. o. b. Philadelphia for eight months during the year was \$3.69 per hundred pounds for four per cent. butterfat milk; for two months it was \$3.81 and for the other two months it has been \$3.94 per hundred pounds. This gives us a weighted average basic price of \$3.755.

Our basic price at receiving stations during this year in the 51-60 mile zone

has been \$3.11 for four per cent. butterfat milk for eight months, \$3.23 for two months and \$3.36 for the other two months.

The increase of twelve cents in the basic price during March and April, 1929, was agreed to after a lengthy discussion with our buyers and did not change the price to the consuming public. Our increase in price in September was the first price increase we have had for three years, which affected the consumer. It was brought about after a four days' conference. Dr. Clyde L. King was called in on the fourth day to arbitrate our differences with the buyers. At that time it was agreed that our price should be increased \$0.25 per hundred, beginning September first, and that Basic and Surplus prices should be paid during October, November and December.

At this conference it was also agreed that our three-year basic average plan should stay in effect during October, November and December, 1929, and that the basic quantity used during 1928, the one used during 1929, and the basic quantity made this fall (during October, November and December) should be added together and divided by three and the amount so obtained would be the producer's basic quantity for 1930.

Shortly after the conference was over one of our buyers notified all his producers that he intended to pay basic price for all milk produced during October, November and December and that they would be allowed to make a new basic average this fall or take the three year average, whichever ever was the higher.

As soon as this word got out there was only one thing for your organization to do—that was to call a meeting of all the buyers and our Executive Committee and to agree on that same proposition all over the territory. This we did and basic prices were paid for all milk during the month of October.

In the middle of that month, however, it became evident that there was a surplus of milk on the market. The weakness of the cream and butter market made it imperative to sell this surplus to the dealers at surplus rather than basic prices. Consequently, on October 19th, a conference was called and it was agreed that for November and December farmers should be paid basic prices for only their established basic quantities and any surplus above these amounts would be paid for at surplus prices for the balance of the year. It was further decided that, in 1930, the basic quantities should be established in accordance with the three-year average plan.

Surplus Prices

Our surplus price for the year of 1929 has run somewhat lower than that of 1928, although the amount of surplus milk was not any greater. Our average price for all surplus milk, four per cent fat, f. o. b. Philadelphia, for 1929 is \$2.681. This is a decrease from 1928 of \$0.102 per hundred pounds. This decrease in price is brought about because of the lower prices of butter which have prevailed this year.

"A" Milk

Ever since our association was organized some of the dealers in this market have been paying a bonus for "A" milk and as time went on more and more dealers paid such bonuses. Yet there was no standard set for the payment of these bonuses and inasmuch as the "A" milk market could not be offered to all of our producers it was questionable whether the organization should ever take part in the prices for

"A" milk. We felt that, inasmuch as this price could not be offered to producers in every territory it might cause dissatisfaction with some of the producers. But, since the number of dealers paying "A" milk bonuses increased materially, and all of them had a different buying plan, it was impossible for any of our directors or officers to explain correctly just what any dealer was paying for "A" milk. We asked the dealers to get together and draw up some plan which they could all use in buying this grade of milk. After considerable effort a plan was finally agreed upon and on February first, 1929, this new plan went into effect.

In agreeing to our "A" Milk Regulations we realized that it was essential that the improvement in the "A" milk keep pace with the evident improvement that has occurred in the "B" milk market. Consistent as it does at the present time of about 30 per cent of the milk produced in the Philadelphia Milk Shed—higher standards are necessary to maintain this relative proportion.

Dairymen having access to "A" milk markets must appreciate that if they are to maintain these high paying levels for milk, they must keep their standards far ahead of the remaining 70 per cent of the market—bearing in mind at the same time that the remaining 70 per cent of the producers are in practically every case anxious for the advantages of the "A" milk market.

The advantages of the organization's actions are two-fold: first, to maintain the market for "A" milk; second, to arrive at a basis whereby we can quote prices to our producers for such a grade of milk.

We have been quoting in our Review month by month the price of "A" milk received at receiving stations in the different mile zones.

Weighted Average Prices

Taking into consideration the amount of milk sold at the basic, first surplus, and second surplus prices, during the past fiscal year, the weighted average price for all milk, four per cent butterfat, f. o. b. Philadelphia, has been \$3.642 per one hundred pounds. If this price is adjusted to include an estimate of the "A" milk premiums and bonuses received by some thirty per cent of our members, the gross weighted average price for all milk, four per cent butterfat, delivered at Philadelphia, has been \$3.757 per one hundred pounds.

Production

Production of milk during the past fiscal year has been somewhat irregular, during some months it exceeded the production of the same month of the previous year and during other months falling considerably below the production of the same month of the previous year.

Due to the fact that the Annual Meeting comes so closely after the close of our fiscal year, it has been impossible to compile final production data for all the milk sold by the association during the past fiscal year. Final reports, however, are available covering about 80% of our total sales. On this proportion of the total volume, production for the year has exceeded the production of the preceding year by a little more than one-half of 1% (0.62%).

EDITOR'S NOTE: Based on the weighted prices for 4% butterfat milk, delivered to Philadelphia, the amount of money paid the farmers for the milk in the Philadelphia Milk Shed for their product was \$29,256,845.60, as compared with \$28,493,762.06 during the previous fiscal year. This represents an increase of 0.95%.

Since it has been impossible to compile the final summary of total sales, no

attempt has been made to summarize our production by states for the fiscal year period. In the table below, however, this information is presented covering the calendar year 1928. We believe a similar summary for the fiscal year when complete will not vary greatly from the data presented.

VOLUME AND VALUE OF INTER-STATE PRODUCTION

ORIGIN	VOLUME	VALUE
STATE	Pounds	Dollars
Pennsylvania	515,421,712	65.22
New Jersey	88,162,884	11.16
Delaware	65,498,424	8.29
Maryland	115,712,306	14.64
West Virginia	3,429,766	0.69
Total	799,248,292	100.00

Market Prospects

It is evident that the amount of milk being produced by farmers throughout the United States is increasing. This situation is apparent in the fluid milk market of the country, as well as in the butter and other dairy product trades.

The storage holdings of butter during the year of 1929 have been above that of 1928 and way above the five-year average. The holdings of butter as of November first, 1929, are 138,324,000 pounds. In spite of the higher tariff on butter the holdings have continued to increase during the year.

We are making every effort to watch our own market and have hoped and believed that, through the care on the part of our membership and the use of the three-year average in the Philadelphia Selling Plan that the present Philadelphia market situation can be maintained.

Organization

During the fiscal year of 1929, 1031 dairymen have been added to our membership. Within the thirteen years of our activities we have issued 27,131 stock certificates.

Field and Test Department

Mr. F. M. Twining, Director, and the eight fieldmen of this department have visited 145 plants, made 87,078 butterfat tests and added 1143 names to our membership. Details of this report will be presented to you by Mr. Twining.

Milk Producers' Review

Our official organ, the INTER-STATE MILK PRODUCERS' REVIEW, has continued to our members, each month, for nearly ten years, the message of the Association to its membership, throughout our territory.

The REVIEW has given you definite trends of the market, it has quoted current market prices of fluid milk to the association's membership, so that all might be informed as to the correct prices to be paid monthly for your product, it has endeavored to keep you posted as to the plans and policies of your organization and of its various departmental programs.

At the same time the REVIEW has kept you posted, in a brief manner, on what is developing in the industry generally and we believe that if each of our members would carefully read each issue of the publication, they would find therein much of an instructive and informative nature.

Much of the income for publishing the INTER-STATE MILK PRODUCERS' REVIEW comes from the advertisements it carries and their support is dependent upon the number of inquiries such advertisers receive. Patronize these advertisers whenever possible.

The editorial and business policies of the MILK PRODUCERS' REVIEW, continue under the direction of August A. Miller, who has performed those duties ever since we began printing the paper. Two years ago Frederick Shangle, our Vice President,

(Continued on page 17)

OUR THIRTEENTH YEAR

Annual Address by H. D. Allebach, President

(Continued from page 16)

was added to the staff as advertising manager.

Finances

Our Association has again kept its expenditures within its income. A detailed report of our financial situation as prepared by our Auditors, McGee, Fleisher & Co., will be presented by our treasurer, Robert F. Brinton.

Statistics

The statistical department is organizing new records of our members, which will enable us to keep in closer touch with their production and changes made by farmers moving from one station to another. We are also keeping in close touch with the amount of milk and cream shipped into Philadelphia from our territory and from other sections. These reports are being given to our directors and fieldmen monthly.

This department is also keeping a record of the average production of milk per farm, so as to keep in touch with the trend of supply throughout the territory.

We are now installing a complete addressograph list of members by locals, so as to give our local officers and fieldmen additional service. We will be in a position to furnish more promptly notices of meetings and lists of members for Local work.

Board of Directors

The Board of Directors has held six bi-monthly meetings during this year. Our plan of having a two-day session, adopted last year, has been carried out and we find that it is giving us far better results than a one-day session. The directors are able to give us market and production conditions in their territory, so we can most fully meet your market problems. I want to commend the directors on their punctuality and interest shown and almost 100 per cent attendance at our meetings throughout the year.

Executive Committee

Due to a number of important matters that came before the Association, the Executive Committee has had frequent meetings throughout the year. The committee has attended all price conferences and has been a party to all price agreements. It has always been the policy of the Association that the Executive Committee should act as the Sales Committee, in conjunction with the President as Sales Manager.

Milk and Cream Reports

The local branches of the United States Department of Agriculture which have been established in the various terminal markets, have been compiling, since about 1918, much valuable information with respect to the production, shipments, storage holdings and prices of dairy products. The most important of these branches are located in Boston, New York, Philadelphia, Chicago and San Francisco.

Three years ago this particular line of work was expanded by the New York City Branch of the Department to include similar information with respect to milk and fresh cream. Its value was at once apparent to the Dairy Industry in other cities.

At the request of the interested groups the Philadelphia Branch of the Department undertook in the summer of 1928, the development of a similar service for the Philadelphia Metropolitan District. Their plans progressed rapidly enough so that the first official reports covering the receipts of milk and fresh cream were released January 1, 1929.

These data are therefore available to us on daily basis for ten full months. Believing that our members will find considerable interest in the results of this service for the ten months ending October 31, 1929, we have prepared four charts which indicate the origin of milk, fresh

cream, butter and cheese received in the Philadelphia Metropolitan District during these ten months. These charts appear on the inside front and back cover pages of this Annual Report and the data on which they are based are tabulated for your information are published in Tables X, XI, XII of my printed report.

The Inter-State Dairy Council

A survey of milk consumption now nearing completion, by the Pennsylvania State College and the United States Department of Agriculture gives us information which indicates the effective work which has been done by the Philadelphia Inter-State Dairy Council in connection with increasing the consumption of milk in the Philadelphia Milk Shed.

These figures indicate an increase in consumption in the Philadelphia area of 11.6% during the past five years.

Other information brought out by the survey indicates that the work which the Dairy Council has been doing among school children and other groups of people, has been very effective.

Perhaps it is well to remind our membership that the Philadelphia Inter-State Dairy Council was started by the Inter-State Milk Producers' Association. It is managed by a Board of Directors of which the Inter-State Milk Producers' Association has equal representation with the distributors.

Undoubtedly one very important factor in the increased consumption of dairy products has been the effective work of the Quality Control Department of the Philadelphia Inter-State Dairy Council in improving the quality of the milk in this territory.

The three other departments of the Dairy Council: Nutrition, Health Dramatics, and Publicity have had to do directly with increasing the knowledge of the public as to the unique food value of milk.

Additional Services to Members

The work of the Association needs developing along two lines: First—There is a distinct call for additional services from the Field and Test Department. Second—The Association needs to give more attention to the matter of milk transportation.

It is more and more evident that the work of a co-operative marketing association is not confined alone to the milk marketing of its members but must include also its services to its producer members which must start with aiding them in the economical, efficient production of the milk.

Our members are asking for service with respect to herd improvement work and many feel the need of a consultant with regard to feeding and dairy management problems. We have evidence from time to time that the Association could perform a valuable service for its members by advising them with respect to future market conditions.

The Association is in a position to summarize general market information and through its Field and Test Department make it available to its individual members, so that they can utilize the information as a basis for making their own decisions.

It would be of great value if the Association were in a position to do more special investigation work in the field of milk testing. It is apparent to the officers that at the present time the members shipping "A" milk should have the services of a specialist in bacteriological information.

Milk Transportation

The shift from railroad to motor transportation of milk into the Philadelphia territory has been more rapid during the past year. This has been due to the im-

Get Those Profit Drops

On top of the many drops of milk required to pay for labor, roughage and feed come those **extra drops—the profit drops.** In them lies your entire profit if you are to make money milking cows.

Some will tell you that one feed is just as good as another—but—have you stopped to figure what one extra pound of milk per day will mean in the way of profit over feed costs? Suppose a cow produces 30 pounds of milk on 9 pounds of a certain feed and 29 pounds of milk on another feed. This extra pound means 2.8 cents (figuring milk at \$2.80 per cwt.) and on the basis of 9 pounds of feed daily it is equivalent to \$6.20 per ton in favor of the better feed. Can you afford to overlook the greater feeding value of this feed that puts extra drops into the pail?

You may be feeding a feed that you think is as good as Larro,—but try Larro and see for yourself that it will put more drops, more pints and pounds into the profit part of the pail. Larro has been doing this for thousands of dairymen and it will do the same for you. It will do it consistently too, for Larro does not vary.



If you have not tried Larro Family Flour you have a treat in store. It is a general purpose flour that adds a new delight to baking—bread, biscuits, cakes and pies. Get a sack from your Larro Dealer.

THE LARROE MILLING CO., DETROIT, MICH.

Larro

FEEDS THAT DO NOT VARY—FOR POULTRY • HOGS • DAIRY

provement of roads and particularly of the trucks themselves, as well as to schedule and routing. Such vehicles have been standardized to the point that they are considered to be quite as dependable as the railroad. Milk can be iced in transit in the best possible shape.

This movement throws upon the Association wide responsibility to take care of the interests of our members connected with such problems as the standardization and regulation of this service.

The central office of the Association has had to spend a considerable proportion of its time during the past year with

many of the detailed questions as well as the larger problems surrounding this traffic.

This question divided itself into three parts: First—The schedule and the guaranteed standard of service. Second—The securing of fair rates which must be as rapidly as possible made into a standard schedule which is fair to both the shipper and the hauler and does not discriminate between producers in the same territory. Third—The securing of additional economies through rerouting of trucks to secure maximum loads and avoid duplication of services.

Report of Field and Test Department For 1929

F. M. TWINING, Director, Field and Test Department

The fiscal year ending October 31st, 1929, the 13th year of the Inter-State Milk Producers' Association, and the 7th of the Field and Test Department has been a year of increasing demands for practically all of both our regular and special types of service.

Practically every branch of our service showed increased activity over last year. We tested 87,078 plant samples, an increase of 1,500 over 1928. We signed 1,143 new membership contracts during the year, an increase of 191 over 1928. We made 5,878 farm calls, an increase of 1,179.

The number of members doing Herd Improvement Work is also increasing each year. One Association in Lancaster County now has 119 herds against 71 last year, an increase of 48. In this territory over 6% of the cows are entered in Herd Improvement Work. The average

and the actual performance of the butterfat analyses at all of the 145 co-operating milk plants in the territory.

If the Association were to undertake the entire work of making butterfat tests, as has sometimes been suggested by members, it would require at least 145 men to perform the work, one for each milk plant, and if the performance of the work were shared with the buyers on a 50-50 basis, the cost to the Association, in men, alone, would be 8 1/2 times the present cost. In addition, this plan would require the set-up of several more laboratories, also much expensive laboratory equipment, and would not, in my judgment, be as satisfactory as the present method.

In some other markets, where commercial laboratories have been employed, co-operatively by producers and buyers of milk, a second group of men have been employed to make check tests, a much

represent an average and not an extreme case.

The composite sample taken over this 14 day period tested 4%, but it happens that there was not one single day of the 14 that a fresh sample tested exactly 4%. Tests of each day's samples were:—3.9; 4.3; 4.2; 4.3; 4.2; 3.85; 4.1; 4.1; 4.2; 3.8; 4.05; 3.95; 4.25, and 3.95. This comparison will also show our members why their Cow Testing Association average tests will probably be different from the tests on their pay slips for the same period, although if comparisons are made over a 12 month period, Cow Testing Association figures and the pay check tests will probably be about the same.

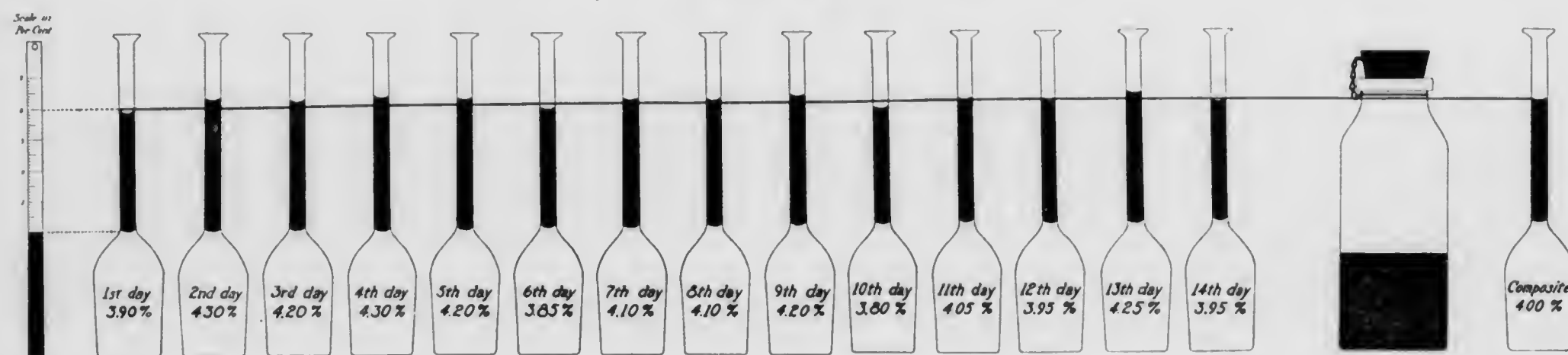
A question asked at a recent local meeting was whether fresh sample tests were not usually higher than composite sample tests covering the same period. A comparison of the average of fresh samples

individual problems relating to many different questions of production and marketing. This has continued during the past year. Our number of farm visits to members was 2,898, an increase of more than 1,100 over 1928.

On several occasions we received calls from groups of members whose butterfat tests had fallen below minimum state and municipal standards. We visited these men and assisted in locating their low testing cows and in making such changes as were necessary in order to meet immediate market requirements.

We believe our work in making individual herd tests, which last year checked on the butterfat production of 6,595 cows, not only gives the owners and the department a means of comparison of weighted average tests at the farms with tests used as basis of payment for milk sold, but also is gradually calling the attention of

Daily Butterfat Tests of Milk from Herd #641
Fresh Samples Taken for 14 Days



Variations in Tests of Daily Samples from Test of Composite Sample

for our Philadelphia Milk Shed is less than 3%.

Check Testing

Along with the increase in the number of plant samples tested the past year, there has been a constant improvement each year in the condition of dealers' composite samples. With more extremely hot weather last summer, we found fewer spoiled samples than ever before. There was a slight increase in the number of test corrections made, over 1928. We had 1,097 against 874 in 1928.

We believe that our system of checking on the members' weights and tests is the most satisfactory and efficient of any plan that has ever been put into operation. By having the responsibility and expense of the operation of the Babcock Test placed on the industry itself, our nine men are able to check up regularly, eight times each year on the methods, equipment

more expensive system for the producers. Under the commercial laboratory method, fresh samples are taken on an average of about one day each week. The chief objection to this method lies in the wide variations that are likely to occur in successive payments. Under our method, a composite sample is taken from each daily delivery, insuring greater accuracy, and providing a method of re-checking, since composite samples must be held for that purpose for a period of 10 days after they have been tested. A study of the amount of variation in butterfat tests of a typical herd from day to day will show the desirability of the composite method of sampling.

Chart

The figures on the chart show the tests of the daily samples of milk of a member for a half month period and the usual trend in variation from day to day. They

taken on 15 day check-ups during the past year shows that there is practically no difference—2,345 fresh samples taken from the milk of 161 members, averaged 3.846% butterfat, and the composite samples of the same 161 herds for the same periods averaged 3.809% butterfat a difference of only .037%.

It is, of course, absolutely necessary that composite samples shall be properly taken and properly kept, and with the help of the various State Departments we are doing our best to guard our members against losses through any kind of carelessness in methods of taking and holding composite samples.

Helping Members With Individual Problems in Production

In our report for 1928 we called attention to the higher percentage of our farm calls being made on members who had asked for help from the Fieldmen with

members to the great need of more herd improvement work in our territory in order to keep our cost of production on a par with the cost of production in other territories. Members are also coming to realize the importance of producing milk with a butterfat content sufficiently high to be on a par with that of outside territories, producers in which are constantly seeking fluid milk outlets in our market.

Plans for 1930

We plan for 1930, first to continue to give our chief attention, without interruption as far as possible, to our major project, check testing. Second, to sign an average of at least 100 new members for every month of 1930. Third, to further Herd Improvement Work throughout our territory, and as far as our time will permit, take care of problems of individual members to the best of our ability.

Co-operative Conference Held at Penn State College

The fourth annual Co-operative Conference, under the auspices of Penn State College, was held at the College on November 15th and 16th. The discussions at the conference were centered around "Membership Problems of Cooperatives," Prof. F. F. Lininger, of the Agricultural Economics Department, was chairman of the meeting.

Those taking part in opening the various discussions included: H. A. Haneman, Pennsylvania State Bureau of Markets; C. W. Slocum, of the Dairyman's League; R. E. Atkinson, Wycomb, Pa.; H. D. Allebach, Inter-State Milk Producers' Association; W. V. Dennis, Department

of Agricultural Economics; J. W. Jones, United States Division of Cooperation; F. P. Weaver, Department of Agricultural Economics, State College; J. K. Stern, Department of Agricultural Economics; W. S. Wise, Dairyman's Co-operative Sales Co., Pittsburgh, Pa.; and Miss Vera McCrea, Home Department, Dairyman's League.

H. D. Allebach, in his address briefly outlined the membership program of the Inter-State Milk Producers' Association. He stressed the necessity of a good field department and the necessity also of the development of an educational program to increase the consumption of milk, as is done by the Dairy Council.

Large Cows Most Economical Producers

The small, refined dairy cow may look best, but the big, roomy cows pays most profit to her owner, according to a survey made by the United States Department of Agriculture. In making the study large and small cows within one breed were compared, both purebreds and grades of every age being included.

On the average the largest cows—those weighing 1,500 pounds—exceeded the smallest cows—those weighing 800 pounds—by 98 pounds of butter fat per cow. Their cost of feed was \$20 higher, but they returned \$43 more per cow in yearly income over cost of feed.

An analysis of figures obtained in the survey shows that as size of cow advanced

100 pounds for each group there was a fairly uniform gain in production of milk and of butterfat, in cost of feed per cow, and in income above feed cost. On the other hand, there was a slight decrease in the butterfat test, but this was not enough to merit special attention.

"Though the group figures always favored the large cows, it was found that many individuals among the large cows in each breed were unprofitable producers and that many small cows in each breed were profitable producers. Therefore in selecting dairy cows of any breed it is not wise to select on the basis of size alone. Size, however, is a factor of great importance."

BABY CHICKS

Big
Sturdy
and
Healthy
CHICKS

We specialize in
BARRED ROCKS
for Breeders during
Broiler Season

We use our Best Breeding
Stock
The best is always the
cheapest
Let us quote you before
buying

ELY
BABY CHICK
HATCHERY
Ingleside, Md.

Quietness and Convenience in
Philadelphia's Newest Hotel

The Robert Morris

17th and ARCH STREETS
Rooms all outside and with
bath. All beds equipped
with box springs and Nach-
man inner hair spring mat-
tresses.

RADIO IN EVERY ROOM
Single rooms... \$3.00 \$3.50 \$4.00
Double rooms... 4.50 5.00 6.00
LUNCHEON .60 and 75
DINNER \$1.00, \$1.15, \$1.50

CRUMB'S Chain Hanging STANCHIONS

Also Water Bowls
Litter Carriers
Feed Carriers
Steel Stalls
Steel Partitions
Tell me what you are most in-
terested in and I will SAVE
YOU MONEY.
WALLACE B. CRUMB
Winthrop W. Dunbar, Successor
Box 2, Forestville, Conn.

High Grade Guernsey and Holstein
Dairy Cows

Car load lots a specialty

JOHN S. MATHIS, New Augusta, Ind.

Produce Quality Milk

Health and cleanliness are important factors in the production of high quality milk. Healthy cows, kept clean, and sanitary practices throughout the dairy contribute to high quality production.

Annual Meeting of the National Milk Producers' Federation

(Continued from page 3)

could be greatly increased, accompanied by a decrease in cost to the consumer.

"The continued stability of the dairy industry requires the complete possession of the domestic market, and to that end should be protected by such tariffs as will guarantee to American dairymen the American market.

Referring to the Dairy Marketing Program, Secretary Hyde said:—

"The Department of Agriculture and the Federal Farm Board esteem it their proper duty to encourage and sustain all true cooperatives regardless of their different forms.

The program for building permanent national marketing associations for dairy products should be worked out after a careful survey and study of every factor on which its success will depend.

We also had an address that evening by Mr. Hartke, President of the National Cooperative Milk Producers' Federation and its Secretary, Mr. Charles W. Holman, also Senator Hough and Miss Vera McCrea.

The Executive Session of the Federation was held on November 13th. Formal reports were made by the Secretary, Charles W. Holman and by the treasurer, Frank P. Willits.

R. W. Balderston, Chairman of the Resolutions Committee, presented a number of resolutions, which were adopted.

The following Officers and Directors were elected to serve for the coming year:

OFFICERS

Harry Hartke.....President
C. E. Hough.....First Vice President
John Brandt.....Second Vice President
Frank P. Willits.....Treasurer
Charles W. Holman.....Secretary

DIRECTORS

Butter
Clude Bechtelheimer, Waterloo, Iowa.
John Brandt, Litchfield, Minn.
P. L. Betts, Chicago, Ill.

Cheese
R. B. Melton, Wisconsin.
W. S. Moscrip, Lake Elmo, Minn.
Other Manufactured Dairy Products
J. D. Irwin, Minneapolis, Minn.
A. G. Ziebell, Marysville, Wash.
G. H. Benkenhoff, Modesto, Calif.
Fluid Milk and Cream
W. P. Davis, Boston, Mass.
Harry Hartke, Covington, Ky.
G. W. Slocum, New York, N. Y.

At Large
John D. Miller, Susquehanna, Pa.
Frank P. Willits, Ward, Pa.
R. Smith Snader, New Windsor, Md.
C. E. Hough, Hartford, Conn.
P. S. Brennenman, Jefferson, Ohio
Ralph Strong, Cleveland, Ohio
N. P. Hull, Lansing, Mich.
C. F. Dineen, Milwaukee, Wis.
H. D. Allebach, Philadelphia, Pa.
H. L. Whiteman, Liberty Center, Ohio
J. H. Mason, Des Moines, Iowa
T. H. Brice, Los Angeles, Calif.
D. N. Geyer, Chicago, Ill.

EXECUTIVE COMMITTEE 1929

John D. Miller.....Harry Hartke
G. W. Slocum.....Frank P. Willits
C. E. Hough.....John Brandt
N. P. Hull

ALTERNATES
W. P. Davis.....R. Smith Snader
Clude Bechtelheimer

Cut Poor Trees First

In cutting the annual supply of firewood, the poor trees in the woodlot should be taken first, foresters at State College recommend. Thinning out the undesirable trees will allow room for the good specimens to develop into more valuable timber.

TRADE MARK **NICE** REG. U.S.A.

THE NAME TO GO BY—WHEN YOU GO TO BUY
PAINT AND VARNISHES

Write for Color Cards and Booklet "Paint Pointers"
EUGENE E. NICE COMPANY, Inc., PHILADELPHIA

High Grade Dairy Cows in HIGHTSTOWN, N. J.

We handle all kinds of cattle
Holsteins—Guernseys—Jerseys
A Specialty

All cows tuberculin tested and sold subject to a 60 or 90 day retest and fully guaranteed in every respect.
Free delivery any distance.

B. ZAITZ & SON

202 Mercer Street
Phone 72 Hightstown, N. J.



100 Real Dairy Cows 100

For sale at all times. Tuberculin tested Holsteins, Guernseys and Jerseys. Real Milk Producers. Carload lots a specialty. Priced to sell.

See or Write.
JACOB ZLOTKIN
Phone 350 FREEHOLD, N. J.

ALFALFA & CLOVER HAY
First or second cutting Alfalfa Clover and Timothy Hay. Straight or mixed cars. Personal Service.
HENRY J. JARVIS, 121 Roosevelt Ave., Syracuse, N. Y.

Clip and Groom Your Cows
During Stable Months
—It Means CLEANER
and BETTER MILK
Clipped and Groomed Cows are
clean and comfortable and keep
dirt out of the milk pail. Clipping
and Grooming improve the
health of your Live Stock.
Gillette Portable Electric
Clipping and Grooming Ma-
chines Operate on the Light
Circuit furnished by any
Electric Power Co. or on any
make of Farm Lighting Plant.
PRICE LIST ON REQUEST
GILLETTE CLIPPING MACHINE CO.
129 West 31st St., Dept. 14, New York, N.Y.
40 Years Making Clipping and Grooming
Machines Only

Let Us Design Your
Stationery
Horace F. Temple
Printer
Bell Phone No. 1
WEST CHESTER, PA.

FOR SALE—"SELECT DAIRY
ALFALFA" Clover, Timothy and
Clover Mixed. Delivered prices
quoted. Prompt shipment. JOHN
DEVLIN HAY CO., 192 N. Clark
Street, Chicago, Illinois.

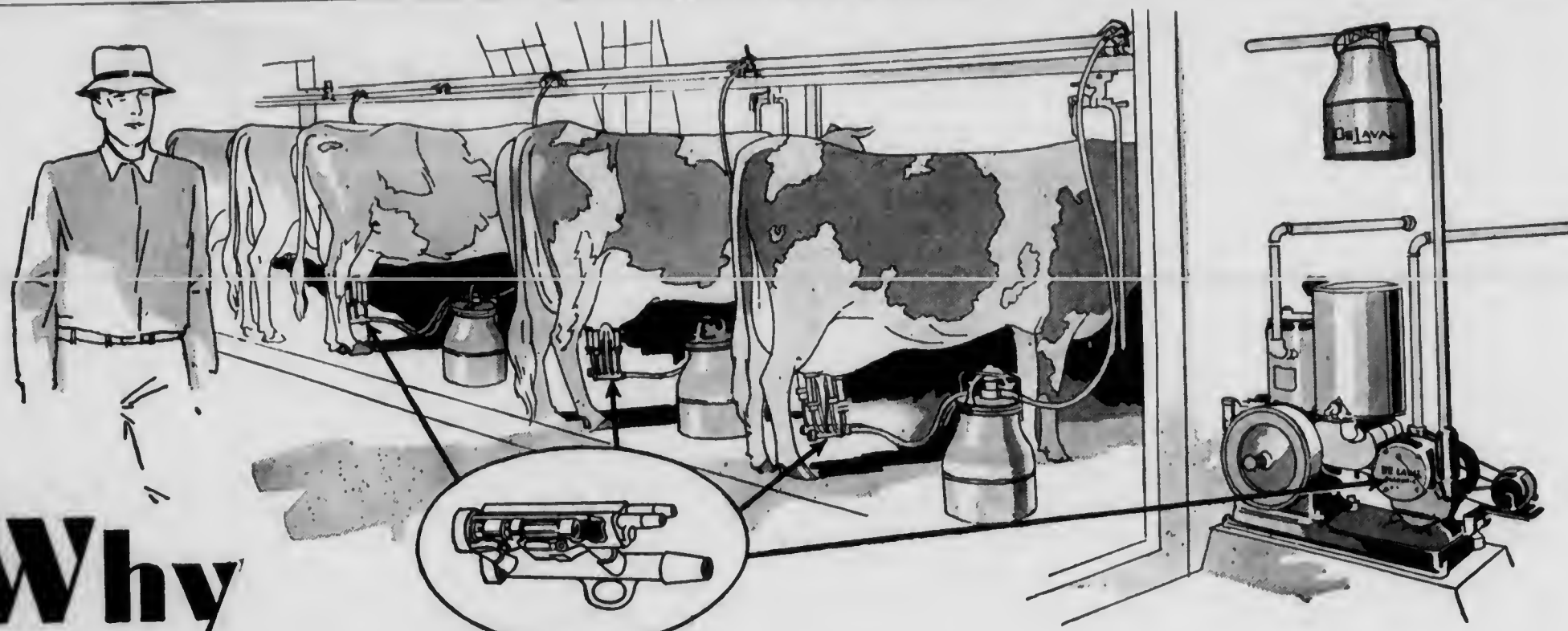
If You Wish to Keep Posted on Dairy Progress

READ THE
INTER-STATE
Milk Producers Review

If You Wish
to Keep Posted
on New Equipment
Feeds, Cattle Sales, Etc.

READ THE ADVERTISEMENTS IN THE
INTER-STATE
Milk Producers Review

Always mention the name of this paper when
answering advertisements



Why Magnetic Force is used in the New De Laval Magnetic Milker

IN THE new De Laval Magnetic Milker the important function of creating and controlling pulsations is performed by magnetic force. This natural force, because of its dependability and the simplicity with which it can be applied, is used extensively by industry in the performance of many important tasks. These differ widely in character, ranging from valve control in pipe organs, where the utmost sensitiveness and delicate responsiveness are necessary, to the control of railroad signals from distant points, a feat which from the viewpoint of public safety requires unflinching dependability.

There is no other method so perfectly qualified to meet the requirements of milker pulsation control, for magnetic force possesses everything desired—unfailing dependability, sensitiveness, instantaneous response and simplicity of application.

Magnetic Force Sets New Standards of Perfect, Uniform, Regular Milking

Perfect, uniform, fast and regular milking is largely dependent upon pulsations. They must be regular and absolutely uniform. Irregular pulsations have the same effect on the cow as a change of hand milkers. Through the use of magnetic force, timed positively by a gear-driven cam in the pulso-pump, pulsations in the De Laval Magnetic Milker are uniform and regular to a split second. No matter how many units are in operation at one time, every pulsator moves as one. Every cow is milked the same at each milking with resulting beneficial effects.

Magnetic Force Increases Efficiency and Simplicity

As the magnetic impulses are carried to each unit by means of a wire, the pulsation pipe line

is eliminated and the entire installation simplified. A single pipe line installation is obtained without sacrificing the important De Laval master control system of pulsations. De Laval principles of milking are applied more efficiently and at the same time in a more simple manner.

Magnetic Force Effects Greater Operating Ease

The De Laval Magnetic Milker is a delight to handle. There is but one air tube to connect to the pipe line. This is steel-capped at the end and connects instantaneously to the Magnetic stall cock with a single motion of one hand. Automatic contact is made at the same time with the pulsation wires imbedded in the walls of the air tube. The new aluminum units are conveniently shaped, light and strong, and are equipped with a handle to facilitate emptying. The udder pulsator has an automatic shut-off arrangement that enables teat-cups to be applied with the greatest ease.

NOTICE TO USERS of the Old-Type DE LAVAL MILKER

Old-type double pipe line DE LAVAL Milkers can be readily converted into Magnetic Milkers, giving all the added advantages of this great new milker while at the same time enabling the use of practically all of the previous installation. Write for complete information. Your nearest De Laval dealer can make the change, which is easily accomplished, quickly, and without interfering with your routine in any way.

Free Trial

To see is to know, and the one best way of appreciating the new high standard of milking set by the De Laval Magnetic Milker, and to understand the value of its many exclusive features, is to operate it yourself in your own barn on your own cows. This is an invitation to do so at no cost to yourself and without obligating yourself in any way. Send in the coupon today to the nearest De Laval office and you will be given an opportunity of trying a De Laval. Watch it, study its action and performance and observe its effect on your cows. Then you'll be convinced, for the De Laval Magnetic Milker tells its own story best.



The Highland Guernsey Dairy, owned by Mr. Roy C. Kinsey, of Roanoke, Va., produces Certified Milk under the most modern conditions. Mr. Kinsey wrote after his first year as a De Laval Milker user: "We have just finished the first year's use of the De Laval milking machine and have found it very satisfactory. The bacterial average for the year was 1952 per c.; the average for the last year when we were hand milking was 6226. We think everyone in the Certified business should use the De Laval."

Send Coupon — See for Yourself

THE DE LAVAL SEPARATOR CO., Dept. 9852
New York, N. Y., 165 Broadway
Chicago, Ill., 600 Jackson Blvd.
San Francisco, Calif., 61 Beale St.

Gentlemen: I would like to try the De Laval Magnetic Milker in my own barn, without putting myself under any obligation whatsoever.

My name is.....

Address.....

No. of cows..... ☐ Check here if you wish literature only.

Milk Producers Review

ISSUED MONTHLY IN THE INTEREST OF THE DAIRY FARMER BY THE

Vol. X

West Chester, Pa., and Philadelphia, Pa., January

No. 9

BASIC PRICE OF MILK REDUCED

25 Cents Per 100 Lbs.

Effective December 20th, 1929

This reduction resulted in a decrease in the price to consumers of one cent a quart on quart packages only

FACTORS THAT BROUGHT ABOUT THE DECREASE IN PRICE INCLUDE AMONG OTHERS:

1st. Increased production of fluid milk in our territory. The following statistics demonstrate it.

	1928 Lbs.	1929 Lbs.	Increase Lbs.
September - -	44,308,174	44,480,440	172,266
October - - -	46,214,120	51,276,970	5,062,850
November - -	43,748,857	49,116,194	5,367,337

The above data also shows that November production this year is 4,635,754 pounds greater than that of September, the low point of the year. This is an increase of 10.42%.

2nd. Tremendous storage stocks of butter throughout the whole country with extremely low prices for this season of the year.

3rd. Marked reductions in prices of canned milk and other dairy products.

NOTE:—See page 5 for average daily prices for milk shipped in December.

EIGHT DAYS IN THE CALIFORNIA DAIRY SECTION

By ROBERT W. BALDERSTON

A California dairy farm or ranch as they call it, presents many interesting features to the dairy-minded visitor from the East. He notices many contrasts when he compares the conditions with those which obtain in the great dairy sections of the Middle Atlantic States. We had, of course understood that for a large part of the year grass grew in California only when supplied with water through irrigation. Nevertheless, it seemed very strange to see water turned in on alfalfa fields and to note the very sharp line between the green of the grass which had been fed this precious water and the dry brown



COW PENS ON A CERTIFIED MILK FARM NEAR LOS ANGELES

stretches beyond the ditch, which had not had a drop of rain for five months. Under these conditions, the green of the alfalfa seems even greener than in Pennsylvania, and the uncultivated areas seemed even more brown and bare than they did when one looked across the hills—away from the irrigated valleys, where the soil, the rocks and dead grass were one beautiful even tone of golden brown.

Dairying Around Oakland

It was my privilege, through the courtesy of the dairy inspection forces of the city of Oakland, to spend a whole day visiting some of the farms which supply that city. It seemed very strange to find that there were only 230 farms supplying a population of over half a million. The average number of cows per shipper to the city of Oakland is 70. I visited the farms of one firm, Messrs. Hansen and Orloff, where on each of two farms, 300 head of milk cows are kept. Then I was taken to the farm of one of the smaller milk producers supplying Oakland, a Mr. Lopez, where on a few acres, about 35 cows were cared for under very cleanly surroundings. Mr. Lopez is one of the very live and business-like Portuguese who form a large proportion of the dairymen of that section of California. I visited one farm where an active young American from the Middle West had taken a farm with a rather old-fashioned set of farm buildings. By installing the so-called Australian system of



A COMMON TYPE OF MILKING SHED IN CALIFORNIA

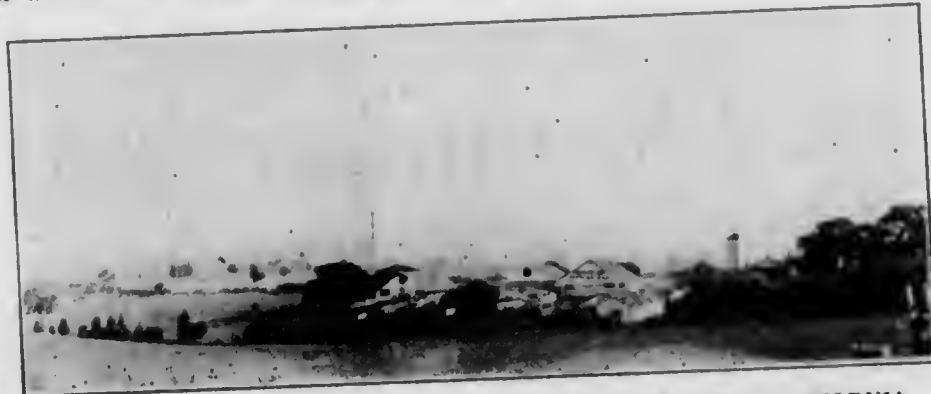
milking, putting the cows in relays through a sanitary milk shed, he was able to meet the very strict regulations of the city of Oakland, without an expensive outlay for improvements. Nearby, was a market milk dairy farm where the only real buildings were a milking shed of concrete floor and walls and an adjoining two-room milk house. (see illustration) The cattle were

in the milk shed only during the milking time, but were allowed the run of a corral with an open shed along one side.

Irrigation Adds to Production Costs

So with the very mild winter climate, tight cold-proof buildings are not necessary. But the California milk shipper has other expenses which would seem quite serious to an eastern farmer. The cows are cared for by men who milk and feed 28 or 30 cows apiece, receiving therefore 90 to 100 dollars a month and their board. A large part of the hay must be bought from other sections. Average prices were from \$20 to \$25 a ton for good alfalfa. Grain prices are quite comparable to those in eastern feed markets. The land is more expensive than in the East and, in addition, each farmer must either provide for irrigation or must buy all his hay and feed except for a very few months in the spring when the native grasses are green in every uncultivated field and pasture.

Dairy cows in California cost practically as much as they do in the East. The State of California has a very strict supervision of all milk produced in the state and large cities like San Francisco, Los Angeles, and Oakland, have requirements by which all the milk supplies of those cities are equal to an "A" milk supply in the East. For instance, all milk for the city consumption must be delivered with less than 100,000 bacteria per c.c. Every farmer must have a milk shed not connected with feed and hay storage or in which other animals are housed. The stables



CERTIFIED MILK FARM, SUPPLYING MILK TO OAKLAND, CALIFORNIA

must be cleaned after each milking. All floors must be of concrete construction and walls and ceilings white-washed, painted or scrubbed. Abundant fresh air is provided through ventilators in the ceiling and there are open window spaces on each side. A two-room milk house must be provided with steam sterilization for utensils and artificial refrigeration for cooling milk and keeping it cool until delivery. The farmers supplying Oakland pay one-half of the expense of the inspection of their farms, the other half of the cost being met by the taxpayers of the city of Oakland itself.

The prices of milk in California cities are about as follows: The retail price is about 14 cents; the price to farmers being \$3.25 per 100 lbs. for 3.5 milk delivered in the city.

Milk Sheds Instead of Barns

A similar visit another day to farmers supplying Los Angeles showed conditions quite similar to those in the San Francisco—Oakland milk shed, except that since it was somewhat warmer, I found that on the farms I visited no shelter is provided for cattle except the building in which they are driven twice a day for milking. On two large certified dairies milking some 700 cows each, the milking shed holds a small proportion of cattle and the cows are moved in and out for milking in practically a continuous line throughout

the day and night. Each milker milks his string of cows and then turns it out again and goes off duty until the next milking. The next milker begins his string, milking it in the same stalls as those used by the previous milker. Grain is usually fed while the cows are being milked. Hay and silage are fed in a trough at one side of the corral or pen where the cattle spend their "spare" time day and night. On some dairies as many as 100 cows are kept on 15 or 20 acres where all feed is bought and the manure is sold to neighboring fruit growers at the rate of \$1.25 per month per cow, the buyer to remove it from the pen.

California Farmers Are Specialists

A California farmer is a specialist. He is either a dairyman, a fruit grower or a vegetable grower. He will not mix his jobs. Therefore, he intensifies his interests in a particular line and puts all his money and all his efforts to making it a success. This kind of intensive application leads quite naturally to large scale production as indicated by the very small number of farms necessary to supply the cities with milk. The California dairymen have been in the habit of buying mature dairy cows from other sections of the country, but an endeavor to obtain herds of disease-free animals is being made by many of them, by raising their calves, segregating them from the mature animals and through care building up herds free from tuberculosis. The certified milk producers of California now have herds entirely free from contagious abortion.

for American dairymen unless the production and consumption within the country is kept on an even basis.

None could be more kind and hospitable than the Californians are to eastern guests. One leaves the state feeling that even in the short space of eight days you have made many friends, and you come home with an admiration for the country and its people that makes you want to have opportunity to visit them more fully.

The scenic beauties of California have been much advertised, but the sturdy spirit and energy of those dairy farmers was the outstanding feature of California that we will best remember.



CATTLE SHED IN THE SAN FRANCISCO SECTION

High Quality Products Stressed by Economist

Development of transportation and distribution of agricultural products have brought about new marketing problems. Prof. H. N. Reist, extension agricultural economist of the Pennsylvania State College, declares

Pennsylvania, with a population of more than 9,000,000, cannot produce sufficient food to supply the demand, Reist said. As a result, agricultural products are shipped into the state from other sections producing a surplus and less favorably situated with reference to home markets. Products coming from other states bear heavy transportation charges and usually are of high quality, graded, and packed to appeal to the customer. Potatoes, eggs, milk and cream, fruit, and other products are competing with the produce of Pennsylvania farms from the trade here.

"To meet this competition there must be efficient production of high quality products," the Penn State economist explained. "Local consumption needs demand adjustment of production to meet them."

Professor Reist stated that community studies conducted in Blair, Fayette, and Lebanon counties revealed that great quantities of food which could be produced locally were being shipped in by distant producers.

Changes have been made to meet



BUILDING A MODERN CONCRETE IRRIGATION DITCH

present needs in the case of dairy products, Reist pointed out. Butter making on farms and in creameries has practically disappeared as the demand for fluid milk has increased. Surveys conducted in Clarion, Jefferson, and Warren counties paved the way to the opening of fluid milk plants to take advantage of favorable markets

INTER-STATE MILK PRODUCERS' ASSOCIATION RECEIVING STATION PRICES in effect January 1st, 1929.

Subject to change whenever warranted by market conditions.

These quotations are based on 3% butterfat milk with a differential of 4 cents for each tenth point and 2 cents for each half tenth point up or down, and are for all railroad points. (Inland stations carry differentials subject to local arrangements.)

This price list is issued with the understanding that it is not to producers and that all buyers using it as a basis of payment to producers shall in addition thereto make the following contributions and payments.

(1) To the Philadelphia Inter-State Dairy Council 2¢ per hundred pounds (46½ quarts) of all milk bought from any producer at price listed hereon.

(2) To the Inter-State Milk Producers' Association 2¢ per hundred pounds (46½ quarts) of all milk bought from members of said association.

(3) To the Philadelphia Inter-State Dairy Council 2¢ per hundred pounds (46½ quarts) of all milk bought from other producers at price listed hereon.

The funds so derived are to be used by the recipients for improving standards of quality in production and distribution of milk in the Philadelphia Milk Shed; for improvement and stabilization of markets and for an educational campaign advertising the food value of dairy products.

Basic price January first				December surplus price.	
Miles	Freight rate per 100#	Price 3% milk	Test	Class 1	Per 100#
1 to 10	inc.	2.88	3.05		\$1.56
11 to 20	"	2.83	3.05		1.58
21 to 30	"	3.03	3.1		1.60
31 to 40	"	3.13	3.15		1.62
41 to 50	"	3.33	3.2		1.64
51 to 60	"	3.43	3.25		1.66
61 to 70	"	3.64	3.3		1.68
71 to 80	"	3.74	3.35		1.70
81 to 90	"	3.89	3.4		1.72
91 to 100	"	3.99	3.45		1.74
101 to 110	"	4.14	3.5		1.76
111 to 120	"	4.24	3.55		1.78
121 to 130	"	4.34	3.6		1.80
131 to 140	"	4.50	3.65		1.82
141 to 150	"	4.60	3.7		1.84
151 to 160	"	4.75	3.75		1.86
161 to 170	"	4.80	3.8		1.88
171 to 180	"	4.90	3.85		1.90
181 to 190	"	5.05	3.9		1.92
191 to 200	"	5.10	3.95		1.94
201 to 210	"	5.20	4.		1.96
211 to 220	"	5.35	4.05		1.98
221 to 230	"	5.40	4.1		2.00
231 to 240	"	5.50	4.15		2.02
241 to 250	"	5.56	4.2		2.04
251 to 260	"	5.66	4.25		2.06
261 to 270	"	5.76	4.3		2.08
271 to 280	"	5.81	4.35		2.10
281 to 290	"	5.96	4.4		2.12
291 to 300	"	6.00	4.45		2.14
			4.5		2.16
			4.55		2.18
			4.6		2.20
			4.65		2.22
			4.7		2.24
			4.75		2.26
			4.8		2.28
			4.85		2.30
			4.9		2.32
			4.95		2.34
			5.		2.36

By order of the Board of Directors

Tenth Floor, Flint Bldg.,
Philadelphia, Pa.
Issued December 28th, 1929.

Robert W. Balderston
Secretary.

INTER-STATE MILK PRODUCERS' ASSOCIATION PHILADELPHIA PRICES in effect January 1st, 1929.

Subject to change whenever warranted by market conditions.

These quotations are based on 3% butterfat and a differential of 4 cents for each tenth point and 2 cents for each half tenth point up or down.

This price list is issued with the understanding that it is not to producers and that all buyers using it as a basis of payment to producers shall in addition thereto make the following contributions and payments.

(1) To the Philadelphia Inter-State Dairy Council 2¢ per hundred pounds (46½ quarts) of all milk bought from any producer at price listed hereon.

(2) To the Inter-State Milk Producers' Association 2¢ per hundred pounds (46½ quarts) of all milk bought from members of said association.

(3) To the Philadelphia Inter-State Dairy Council 2¢ per hundred pounds (46½ quarts) of all milk bought from other producers at price listed hereon.

The funds so derived are to be used by the recipients for improving standards of quality in production and distribution of milk in the Philadelphia Milk Shed; for improvement and stabilization of markets and for an educational campaign advertising the food value of dairy products.

Basic price January 1st.		December surplus price.	
Test per cent.	Basic Quantity Per 100#	Price per qt. : Per 100#	CLASS 1 Per qt.
3.	\$3.29	7.1 : \$2.13	4.6
3.05	3.31	7.1 : 2.15	4.6
3.1	3.33	7.15 : 2.17	4.65
3.15	3.35	7.2 : 2.19	4.7
3.2	3.37	7.25 : 2.21	4.75
3.25	3.39	7.3 : 2.23	4.8
3.3	3.41	7.35 : 2.25	4.85
3.35	3.43	7.4 : 2.27	4.9
3.4	3.45	7.4 : 2.29	4.9
3.45	3.47	7.45 : 2.31	4.95
3.5	3.49	7.5 : 2.33	5.
3.55	3.51	7.55 : 2.35	5.05
3.6	3.53	7.6 : 2.37	5.1
3.65	3.55	7.65 : 2.39	5.15
3.7	3.57	7.65 : 2.41	5.2
3.75	3.59	7.7 : 2.43	5.2
3.8	3.61	7.75 : 2.45	5.25
3.85	3.63	7.8 : 2.47	5.3
3.9	3.65	7.85 : 2.49	5.35
3.95	3.67	7.9 : 2.51	5.4
4.	3.69	7.95 : 2.53	5.45
4.05	3.71	8. : 2.55	5.5
4.1	3.73	8. : 2.57	5.5
4.15	3.75	8.05 : 2.59	5.55
4.2	3.77	8.1 : 2.61	5.6
4.25	3.79	8.15 : 2.63	5.65
4.3	3.81	8.2 : 2.65	5.7
4.35	3.83	8.25 : 2.67	5.75
4.4	3.85	8.3 : 2.69	5.8
4.45	3.87	8.3 : 2.71	5.8
4.5	3.89	8.35 : 2.73	5.85
4.55	3.91	8.4 : 2.75	5.9
4.6	3.93	8.45 : 2.77	5.95
4.65	3.95	8.5 : 2.79	6.
4.7	3.97	8.55 : 2.81	6.05
4.75	3.99	8.6 : 2.83	6.1
4.8	4.01	8.65 : 2.85	6.1
4.85	4.03	8.65 : 2.87	6.15
4.9	4.05	8.7 : 2.89	6.2
4.95	4.07	8.75 : 2.91	6.25
5.	4.09	8.8 : 2.93	6.3

By order of the Board of Directors

Tenth Floor, Flt Bldg.,
Philadelphia, Pa.
Issued December 28th, 1929.

President, Secretary

Pennsylvania Farm Products Show

Plans are about completed, we are advised by the Pennsylvania Farm Products Show Commission to make the 1930 Farm Products Show, which will be held in Harrisburg, Pa., January 21st, 22nd 23rd and 24th, the largest and best from every angle.

While it is to be regretted that the new Pennsylvania Farm Products Show building, to be erected in Harrisburg, has not yet been completed, we are assured however, that it will be available for the 1931 show.

This year's show will be housed, as heretofore in various centrally located buildings, all within easy access of the center of the city. The exhibit space available will aggregate some 100,000 square feet.

The live stock exhibits will be fully representative of the industry, an interesting dairy cattle show is promised.

Premium lists this year are larger than ever and promise some interesting competitions for awards.

More than 30 state agricultural organizations will hold sessions in Harrisburg during Farm Products Show week. Many of these meetings will be of an annual nature, while others will be educational.

Reduced Railroad Rates

A special rate of one and one half fare to the Farm Products Show and return to your homes is available. Procure a reduced fare certificate from the secretary of your farm organization, or from your county agent.

New Jersey Farm Products Show

Approximately 30,000 square feet of floor space will be required to house the 15th Annual New Jersey Farm Products Show, which will be held in the Armory Building, Trenton, N. J., January 14th 15th, 16th and 17th, 1930.

There is to be an elaborate exhibit of agricultural machinery and equipment, including tractors for every type of farming.

The State Department of Agriculture, which is supervising the Farm Products and Equipment Show, has also arranged for the educational exhibits which will bring a direct message to the people of New Jersey as to the purposes and accomplishments of their respective departments as related to the various interests in the State. These exhibits will include the three bureaus of the Department of Agriculture, Agricultural Extension Stations; Department of Conservation and Development; State Highway Department, New Jersey Public Library Commission and the State Police.

Many special demonstrations have been arranged, while the Women's Committee will present a full week's program especially attractive to the farm women.

Various sessions of the state wide agricultural associations will be held in Trenton during the week of the show and we believe that every one who attends the show will find themselves well repaid for the effort and expense incurred in attending the show.

New Cow Testing Association in Maryland

A new cow testing association will, we are advised, be organized in Cecil County, Maryland, during the current year. Considerable interest on the part of the dairymen has been evidenced and a number have already signified their intention of becoming members. County Agent, J. Z. Miller, hopes to get the new association in operation during the coming month.

Dairy Herd Improvement Is Reflected in Milk Pail

Wisconsin leads all other States in the number of dairy-herd-improvement associations. It has 154 out of a total of nearly 1,100 in all the States, according to reports compiled by the Bureau of Dairy Industry of the United States Department of Agriculture.

These associations give dairymen information as to the profitableness of their cows. On the basis of such information, association members have been weeding out the less desirable animals and retaining

the best. The value of this practice is reflected in the steady increase in the average production of the cows under test in these associations. In 1920 the average production per cow in these herds was 247 pounds of butterfat. In 1924 this had increased to an average of 279 pounds. According to the bureau's records the production figures for the years from 1925 to 1928 were 284 pounds, 289 pounds, 293 pounds, and 295 pounds.

Don't Let Your Milk Freeze

EVERYBODY LOSES WHEN MILK FREEZES

A number of factors enter into the matter of the correct weighing, sampling and handling of frozen milk. It even has a detrimental effect on consumption.

1.—Producers Lose in Weight and Test

Aside from the frozen milk and cream particles that adhere to milk cans and lids, and become lost, there is an appreciable loss from the remaining icy slush that remains in the weighing vats. This icy slush increases and decreases in the weight vat in accordance with the temperature of the milk and makes accurate weighing impossible.

It is also a well recognized fact that it is impossible to accurately sample frozen milk for butterfat test. A survey made by the Field and Test Department of the Inter-State Milk Producers' Association on a number of dairies showed that an average test of 4 per cent, on days when milk was **not frozen**, was reduced to 3.4 per cent, for the same samples, when the milk was allowed to freeze. It is evident therefore, that a true sample of milk cannot be obtained unless the frozen milk be completely thawed before samples for butterfat tests are taken.

2.—Buyers Lose in Handling Frozen Milk

A considerable loss of time results in the handling of frozen milk. Weighing is greatly slowed down because of the retention of frozen icy slush in the weight tank. Frequent readjustments of the weigh scales is necessary—and at that it is difficult to obtain true weights.

Frozen milk also exerts a detrimental effect on the appearance of the milk, which may lead to losses, such as decreased consumer consumption.

3.—Consumers Lose in Quality of Milk

Milk that has once been frozen never recovers its original quality. Particles of the milk curd become changed in character after freezing. Some of these particles separate and frequently adhere to the glass milk containers and convey the impression to the consumer that the milk has been tampered with.

WHERE IS MILK MOST LIKELY TO BECOME FROZEN? EVIDENTLY AT THE FARM

The proof is evident—Milk delivered by the same truck will have some dairies that **never have frozen milk**, no matter how cold the weather may be, while on the other hand, there are others that almost always have frozen milk when the weather temperature gets below the freezing temperature.

Keep your milk from freezing—
It will save you money.

F. M. TWINING, Director,
Field and Test Department.

Manufactured Dairy Products Declined Slightly in 1928

A slight decline in the amount of manufactured dairy products is reported for 1928 by the Bureau of Agricultural Economics of the United States Department of Agriculture as indicated by reports received from creameries, cheese factories and other dairy manufacturing plants.

Increases were reported in the production of American cheese, evaporated milk, and ice cream, but these increases were slightly more than offset by decreases in

butter and other commodities, the milk equivalent of manufactured dairy products in 1928 being about six tenths of one per cent less than in 1927.

Creamery butter production for the United States in 1928 was reported as 1,467,677,000 pounds or a decrease of approximately 29,000,000 pounds, or 1.9 per cent from 1927. With the exception of 1927, however, this is the largest amount reported by the bureau.

Robert W. Balderston Elected Manager of the National Dairy Council

The National Dairy Council, Chicago, Illinois, announces the appointment of Robert W. Balderston, who for nine years has been executive secretary of the Philadelphia Inter-State Dairy Council, Philadelphia, Pennsylvania, as manager of the National Dairy Council, succeeding Dr. C. W. Larson, who tendered his resignation several months ago.

In addition to being executive secretary of the Philadelphia Inter-State Dairy Council, Mr. Balderston has also been secretary of the Inter-State Milk Producers' Association, Philadelphia, Penna., operating in the Philadelphia Milk Shed for 13 years.

Mr. Balderston was born and reared on his father's farm near Kennett Square, Chester County, Pa., some thirty odd miles from Philadelphia.

He obtained his first education in the usual one-room country school. Later he attended the Westtown Friends' School, from which he graduated in 1900.

He obtained the usual farm and dairy education on his father's farm, later becoming a partner in the enterprise. Co-operating with neighbors, they were among the first to successfully grow alfalfa in southeastern Pennsylvania.

Mr. Balderston and his father were among the charter members of the first cow testing association in Pennsylvania, one of the first associations of its kind in the United States. They were also among the early advocates of the tuberculin testing of dairy cattle.

In 1910 the Balderstons started to bottle a special nursery milk on their farm, which they sold in nearby towns. This development brought Mr. Balderston in direct touch with the distribution as well as the production of fluid milk for market consumption.

During the time of his service as secretary of the Inter-State Milk Producers' Association, Mr. Balderston obtained leave of absence in 1919 to go abroad with the American Friends Service Association to engage in the program of Child Feeding in Germany under the American Relief Administration of which Herbert Hoover, now president of the United States, was the chief executive.

Returning, a year later, he continued to serve as secretary of the Inter-State Milk Producers' Association, and shortly thereafter became an active factor in the development and operation of the Philadelphia Inter-State Dairy Council, one of the first regional units to become identified with the National Dairy Council.

Fall Crops To Be Larger Than Expected

Yields of field crops harvested during October turned out in general better than was anticipated at the beginning of the month, according to the Federal-State Crop Reporting Service.

Potato prospects increased during the month from 25,859,000 to 26,269,000 bushels which compares with a record crop of 31,980,000 bushels a year ago and a 5-year average of 24,869,000 bushels.

The November 1 estimate for corn is 47,357,000 bushels which is about 3,000,000 bushels less than the 1928 production and 10,000,000 bushels less than the 5-year average.

The estimates for other crops, which remain unchanged during the month are: winter wheat, 20,268,000 bushels; oats, 31,801,000 bushels; barley, 910,000 bushels; tame hay, 4,196,000 tons; apples, 5,973,000 bushels; peaches, 1,157,000 bushels; pears, 272,000 bushels; and grapes, 16,200 tons.

INTER-STATE MILK PRODUCERS REVIEW

Official Organ of the
Inter-State Milk Producers' Association, Inc.
August A. Miller, Editor and
Business Manager
Frederick Shangle, Advertising Manager
Published Monthly by the Inter-State Milk
Producers' Association, Inc.

Business Office
Flint Building, 219 N. Broad St., Phila., Pa.
235 E. Chest. St., West Chester, Pa.
Editorial and Advertising Office
Flint Building, 219 N. Broad St., Phila., Pa.
Bell Phone, Locust 5391 Locust 5392
Keystone Phone, Race 5344

Printed by Horace F. Temple, Inc.
West Chester, Pa.
Subscription
50 cents a year in advance
Advertising rates on application

"Entered as second-class matter, June 3, 1920,
at the post office at West Chester, Pennsylvania
under the Act of March 3, 1879."



The Inter-State Milk Producers' Association, through its official organ, "The Inter-State Milk Producers' Review," extends to its membership and to all of the readers of the Inter-State Milk Producers' Review, its best wishes for a Happy and Prosperous New Year.

A great measure of the associations' continued success during the past year has been due to the spirit of cooperation and fair dealing evidenced by the membership on the whole as well as that of the co-operating buyers of our product and it is hoped that this may continue and grow, year by year, so that the continued success of the association, as well as those in the industry with whom we are cooperating, may be assured.

Within the confines of our territory or to be somewhat more explicit, by saying that within the states of Pennsylvania and New Jersey, two great State wide Farm Products Shows will be held during the current month.

These two major shows will be held, one in Harrisburg, Pennsylvania, January 21st to 24th and the other in Trenton, New Jersey, January 14th to 19th, incl.

No matter what state you may live in, there is always something new to be seen at these great shows.

Agriculture, from every angle may be studied at these splendid exhibits.

During the weeks of the show, in both states, many meetings of farm organizations will be held. You should attend the meetings that you may be interested in.

Special railroad rates are available and we believe that any effort that you make to attend these shows will be time and money well spent.

For some time our producers have been warned, both through the columns of THE MILK PRODUCERS' REVIEW and at meetings of our local units, as well as at the time of our annual meeting, that any increase in the rate of production would mean a decrease in the market price of fluid milk.

The crisis came in December and your association was forced to make a price concession of 25 cents per hundred pounds to hold its market.

Conditions in the milk market were being strongly reflected in the market for all dairy products. Butter was on a lower price basis than for years and stocks of storage butter were abnormally high. Condensed milk was being offered at bargain prices and the situation required immediate action.

After a general discussion of the whole situation it was believed that the most

effective method of controlling the situation was that of making the price reduction noted.

Again we must warn our producers. The market on the whole is in a very unsettled condition. Continued heavy production must be adjusted to meet consumption demands. Every producer of fluid milk should give this matter his serious attention.

Eliminate your border cows. Feed some of your calves for the veal market, or you may readjust your feeding program to meet conditions for the time.

To maintain a satisfactory market, every dairyman should study the situation most carefully and avoid any greater productive rate and should also study well the economic conditions governing his present day productive methods.

SPECIAL NOTICE

December Milk Prices

Under agreement with co-operating buyers, the price agreed upon for payment to producers for December, 1929 milk which involved two different prices, one applying for the first 19 days at the old price and that applying for the last 12 days, at a lower basic price, has been calculated into an average basic price for the whole month's shipment—and payment will be made by co-operating buyers on that basis, as quoted on page five of this issue of the Milk Producers' Review. Surplus prices will be paid for all milk in excess of the basic average. December surplus prices are also quoted on Page five of this issue of the Milk Producers' Review.

January Milk Prices

Under agreement with co-operating buyers, the price to be paid for fluid milk, beginning December 20th, 1929, and applying during January, 1930, and until further advised, will be as follows:

The price of basic milk 3 per cent butter fat content, delivered Philadelphia, will, subject to market conditions, be \$3.29 per 100 pounds or 7.4 cents per qt.

The price of basic milk delivered at receiving stations in the 51-60 mile zone, three per cent butterfat content, will, subject to market conditions, be \$2.71 per hundred pounds, with the usual variations at other mileage points.

Surplus milk will be paid for by co-operating buyers at the average price of 92 score butter, solid pack, New York City, plus 20 per cent for the month.

December Butter Prices

	Philadelphia	New York	Chicago
2	44	43	42
3	44 1/2	43 1/2	42
4	44 1/2	43 1/2	42
5	44 1/2	43 1/2	42
6	44 1/2	43 1/2	42
7	44 1/2	43 1/2	42
8	44 1/2	43 1/2	42
9	44 1/2	43 1/2	42
10	44 1/2	43 1/2	42
11	44 1/2	43 1/2	42
12	44 1/2	43 1/2	42
13	44 1/2	43 1/2	42
14	44 1/2	43 1/2	42
15	44 1/2	43 1/2	42
16	44 1/2	43 1/2	42
17	44 1/2	43 1/2	42
18	44 1/2	43 1/2	42
19	44 1/2	43 1/2	42
20	44 1/2	43 1/2	42
21	44 1/2	43 1/2	42
22	44 1/2	43 1/2	42
23	44 1/2	43 1/2	42
24	44 1/2	43 1/2	42
25	44 1/2	43 1/2	42
26	44 1/2	43 1/2	42
27	44 1/2	43 1/2	42
28	44 1/2	43 1/2	42
29	44 1/2	43 1/2	42
30	44 1/2	43 1/2	42
31	44 1/2	43 1/2	42

MARKET CONDITIONS

H. D. ALLEBACH

Since our last issue of the MILK PRODUCERS' REVIEW, the price of milk has been reduced 25 cents per hundred pounds to the producer and the retail price has been reduced one cent per quart, to the consuming public.

Up to the present time our production has shown but little falling off, in fact it is about the same as that of the fall months. In other words production is exceeding consumption.

It is too early as yet to figure just what our basic quantity amount will be or whether it will be in excess of our fluid milk and table cream consumption. If it proves to be in excess of the consumptive demand we will doubtless have to work out a percentage basis of our established basic amount of milk, so as to maintain the quantity and payment of basic milk equal to the consumptive demand.

We are receiving many requests for adjustments of basic amounts from our farmers and as we ourselves cannot forecast exact conditions we are very slow in recommending any increase in the producer's basic, beyond that made in the regular way. All such requests are being held under advisement, awaiting further developments.

One of the outstanding policies of the Federal Farm Board is to advocate a productive basis to meet the demands of consumption. Your organization has been trying to do that thing for the past ten years. For some reason however, our producers, this fall, exceeded all our expectations and with market conditions as they are, there is certainly no better time for the farmers to sell off their border cows. At the present high cost of feed they can earn no money. We believe that if you did this alone it would go a long way toward a reduction in production, save you money and help straighten out the market, thus enabling us to take care of all the milk within our territory.

Probably some of the readers of the MILK PRODUCERS' REVIEW do not realize the serious condition of the market at the present time, and I do not want to make it any worse than it is, but, I feel it my duty to caution every producer that the production of dairy products in our territory and outside of it as well, seems to me to be way above the demand and I feel that this should be enough warning for all of you to know what you should do.

December Milk Prices
As has been previously stated in this issue of the MILK PRODUCERS' REVIEW, the December, 1929, price of milk, to which co-operating buyers have agreed, represented an average basic price calculated over a period from December 1st to 19th at the price prevailing for that period and the lower price, in effect during the last 12 days of the month.

Under this plan but one check in settlement of the month's shipments will be made by co-operating buyers and it will apply for this month only.

Grade B market milk shipped to co-operating buyers, under the Philadelphia

Selling Plan for December will be paid for on a basis of \$3.44 cents per hundred pounds, based on 3 per cent butterfat content or 7.40 cents per quart.

Grade B market milk, three per cent butterfat content, delivered at receiving stations in the 51-60 mile zone, for December is quoted at \$2.87 per hundred pounds. The usual butterfat differentials and freight rate variations, applying in other mileage zones in the territory are shown by quotations on Page 5, of this issue of the MILK PRODUCERS' REVIEW.

The price of "A" milk, under the usual butterfat variations and prices in the different mileage zones in the territory and at "A" stations for December, are also quoted on Page 5 of this issue of the MILK PRODUCERS' REVIEW.

Surplus Prices
The price of Class I surplus milk for December, three per cent butterfat content, F. O. B. Philadelphia, is quoted at \$2.13 per 100 pounds, or 4.6 cents per pound. The price of Class I Surplus Milk, of the same butterfat content, at all receiving stations, is quoted at \$1.56 per 100 pounds.

December Butter Prices
Not since 1921 have any such changes occurred during fall and winter months as those which began toward the middle of October and it is necessary to go back to 1916 to find a time when December butter prices were as low as those of this year. That such a condition was unexpected is evidenced by the fact that large quantities of butter were stored during the earlier months and while some of this was doubtless put away at the time in order to avoid immediate losses, dealers would certainly have taken their losses then had they anticipated a situation which has made the moving of storage butter at a profit practically impossible.

There was an apparent reduction in the consumption of butter during 1929 but production kept on.

Storage stocks of butter in the United States on December 1st, 1929, was 111,000,000 pounds, which was 40,000,000 pounds above that of last year and approximately 32,000,000 pounds more than the average December 1st storage of the past five years.

It is obvious that this butter must be moved into consumptive channels before a new season rolls around but just what the effect of the existing surplus will be during the remainder of the present season remains to be seen.

The month of December opened with 92 score solid pack butter, New York City, on which the price of surplus milk is based, quoted at 43 cents per pound. For a week quotations ruled about one-half a cent higher after which there was a sharp decline to 39 cents. Fractional upturns followed with a top price of 41 cents but at the close of the month quotations had again receded to 39 1/2 cents.

The average price of 92 score solid packed butter, New York City, on which the surplus price for December was computed was .4140 cents per pound.

Fined \$100 For Selling Unlawful Butter

Several grocers and delicatessen storekeepers in Philadelphia were prosecuted and fined \$100 and costs recently for selling butter which contained an excessive amount of moisture and not the proper percentage of butterfat, according to the Bureau of Foods and Chemistry, Pennsylvania Department of Agriculture.

Butter which was found in the stores

where arrests were made, contained as high as 30 per cent moisture. The law requires that butter contain not more than 16 per cent moisture.

A careful check-up is now being conducted in many parts of the State to stop the selling of butter having excess moisture. Wherever storekeepers are found selling such butter, prosecutions are ordered immediately.

LATEST MARKET PRICES

The basic prices, quoted below, for December, 1929, represent those to be paid by co-operating buyers for that month. They represent the average price of milk covering 19 days at the old price and 12 days in December at the new lower basic price.

For all milk in excess of the basic quantity the surplus price, quoted below, for the month of December is to be paid.

Surplus milk will be paid under one classification. Class I, represented by the amount of milk in excess of the basic average, which will be paid for by co-operating dealers on the basis of 92 score butter, solid pack, New York City, plus 20 per cent.

PHILADELPHIA SELLING PLAN
INTER-STATE MILK PRODUCERS' ASSOCIATION PRICES
This price list is issued with the understanding that it is net to the producers and that all buyers using it as a basis of payment to producers, shall in addition thereto make the following contributions and payments:

(1) To the Philadelphia Inter-State Dairy Council, 2c per 100 pounds (46 2/3 quarts) of all milk purchased from any producer at prices listed herein.
(2) To the Inter-State Milk Producers' Association, 2c per 100 pounds (46 2/3 quarts) of all milk bought from members of said Association.
(3) To the Philadelphia Inter-State Dairy Council, 2c per 100 pounds (46 2/3 quarts) of all milk bought from other producers at prices listed herein.

The funds so derived are to be used by the recipients for improving standards of quality in production and distribution of milk in the Philadelphia Milk Shed, for improvements and stabilization of market and for an educational campaign advertising the food value of dairy products.

BASIC PRICE		BASIC PRICE	
December, 1929, Average Basic Price		Country Receiving Stations	
F. O. B. Philadelphia		December, 1929, Average Basic Price	
Test Per Cent.	Per 100 Lbs.	Test Per Cent.	Per 100 Lbs.
3.05	\$3.44	3.05	\$1.58
3.1	3.46	3.1	1.60
3.15	3.48	3.15	1.62
3.2	3.50	3.2	1.64
3.25	3.52	3.25	1.66
3.3	3.54	3.3	1.68
3.35	3.56	3.35	1.70
3.4	3.58	3.4	1.72
3.45	3.60	3.45	1.74
3.5	3.62	3.5	1.76
3.55	3.64	3.55	1.78
3.6	3.66	3.6	1.80
3.65	3.68	3.65	1.82
3.7	3.70	3.7	1.84
3.75	3.72	3.75	1.86
3.8	3.74	3.8	1.88
3.85	3.76	3.85	1.90
3.9	3.78	3.9	1.92
3.95	3.80	3.95	1.94
4	3.82	4	1.96
4.05	3.84	4.05	1.98
4.1	3.86	4.1	2.00
4.15	3.88	4.15	2.02
4.2	3.90	4.2	2.04
4.25	3.92	4.25	2.06
4.3	3.94	4.3	2.08
4.35	3.96	4.35	2.10
4.4	3.98	4.4	2.12
4.45	4.00	4.45	2.14
4.5	4.02	4.5	2.16
4.55	4.04	4.55	2.18
4.6	4.06	4.6	2.20
4.65	4.08	4.65	2.22
4.7	4.10	4.7	2.24
4.75	4.12	4.75	2.26
4.8	4.14	4.8	2.28
4.85	4.16	4.85	2.30
4.9	4.18	4.9	2.32
4.95	4.20	4.95	2.34
5	4.22	5	2.36
5.05	4.24	5.05	2.38

When milk is not tested the price F. O. B. Philadelphia is eight cents per quart.

DECEMBER SURPLUS PRICES	
F. O. B. Philadelphia	
Test Per Cent.	Per 100 Lbs.
3.05	\$2.13
3.1	2.15
3.15	2.17
3.2	2.19
3.25	2.21
3.3	2.23
3.35	2.25
3.4	2.27
3.45	2.29
3.5	2.31
3.55	2.33
3.6	2.35
3.65	2.37
3.7	2.39
3.75	2.41
3.8	2.43
3.85	2.45
3.9	2.47
3.95	2.49
4	2.51
4.05	2.53
4.1	2.55
4.15	2.57
4.2	2.59
4.25	2.61
4.3	2.63
4.35	2.65
4.4	2.67
4.45	2.69
4.5	2.71
4.55	2.73
4.6	2.75
4.65	2.77
4.7	2.79
4.75	2.81
4.8	2.83
4.85	2.85
4.9	2.87
4.95	2.89
5	2.91
5.05	2.93

MONTHLY SURPLUS PRICES	
4% At All Receiving Stations	
Test Per Cent.	Per 100 Lbs.
3.05	\$1.58
3.1	1.60
3.15	1.62
3.2	1.64
3.25	1.66
3.3	1.68
3.35	1.70
3.4	1.72
3.45	1.74
3.5	1.76
3.55	1.78
3.6	1.80
3.65	1.82
3.7	1.84
3.75	1.86
3.8	1.88
3.85	1.90
3.9	1.92
3.95	1.94
4	1.96
4.05	1.98
4.1	2.00
4.15	2.02
4.2	2.04
4.25	2.06
4.3	2.08
4.35	2.10
4.4	2.12
4.45	2.14
4.5	2.16
4.55	2.18
4.6	2.20
4.65	2.22
4.7	2.24
4.75	2.26
4.8	2.28
4.85	2.30
4.9	2.32
4.95	2.34
5	2.36

MONTHLY BASIC PRICE OF GRADE B	
OR MARKET MILK	
3 per cent butterfat content	
Test Per Cent.	Per 100 Lbs.
3.05	\$1.58
3.1	1.60
3.15	1.62
3.2	1.64
3.25	1.66
3.3	1.68
3.35	1.70
3.4	1.72
3.45	1.74
3.5	1.76
3.55	1.78
3.6	1.80
3.65	1.82
3.7	1.84
3.75	1.86
3.8	1.88
3.85	1.90
3.9	1.92
3.95	1.94
4	1.96
4.05	1.98
4.1	2.00
4.15	2.02
4.2	2.04
4.25	2.06
4.3	2.08
4.35	2.10
4.4	2.12
4.45	2.14
4.5	2.16
4.55	2.18
4.6	2.20
4.65	2.22
4.7	2.24
4.75	2.26
4.8	2.28
4.85	2.30
4.9	2.32
4.95	2.34
5	2.36

3.85	2.47	5.3	4.25	2.06
3.9	2.49	5.35	4.3	2.08
3.95	2.51	5.4	4.35	2.10
4.	2.53	5.45	4.4	2.12
4.05	2.55	5.5	4.45	2.14
4.1	2.57	5.55	4.5	2.16
4.15	2.59	5.6	4.55	2.18

Suggestions For the Improvement of Dairy Barns in the Southeastern Section of Pennsylvania

By M. G. Betts, Architect, and M. A. R. Kelley, Assistant Engineer, Bureau of Public Roads,
U. S. Department of Agriculture

(Continued from last month)

Artificial Light

Much, if not most, of dairy barn work is done before sunrise or after sunset. Ample and reliable artificial light makes for efficiency and speed in getting the chores done. Experimental data show that good lighting reduces the time required by from 25 to 40 per cent. Many owners, where current is available, have installed electric lights. Others have found it profitable to install individual electric plants. Because of the fire hazard, all electrical wiring and appliances should be installed in strict accordance with the National Electric Code.² Owing to the

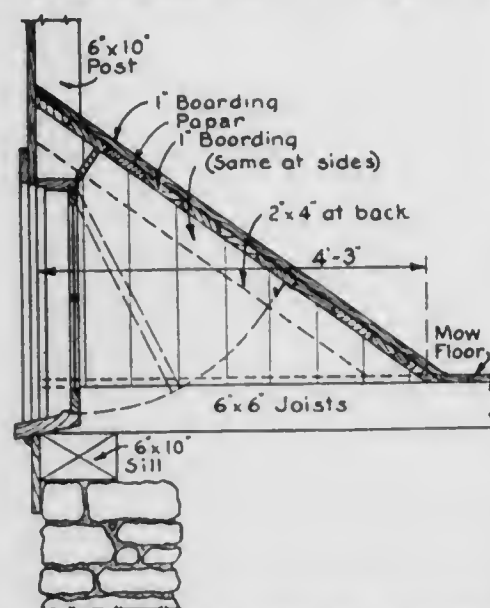


Fig. 4. Method of introducing light into stable from above the mow floor.

dampness and ammonia fumes present in many old barns the accepted methods of wiring differ somewhat from those employed in house wiring. Meters should be placed where there is no likelihood of dampness. Wiring in hay lofts should be run in sheathed cables. If rigid conduit is used it, together with all fittings, should be of rust proof material and should be pitched to proper drainage points to care for any condensation that may occur.

All barns should be protected from lightning. There is no question concerning the value of properly installed lightning protective systems.³ The installation of all

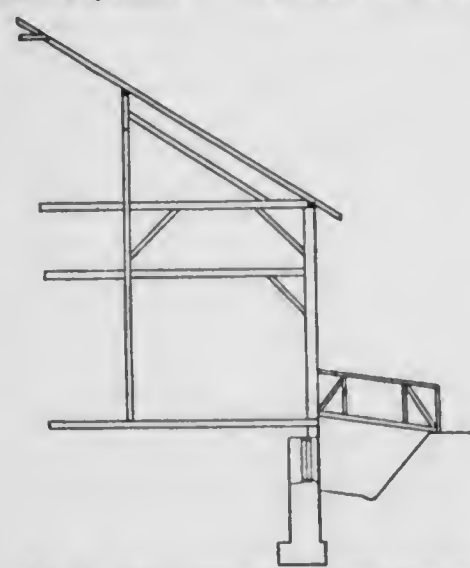


Fig. 5. Part cross-section of bank barn wall and bank cut away to admit light and air.

wiring and lightning protective systems should be done only by those experienced in the work.

Ventilation

Cows, as do all animals, give off heat and in breathing produce certain gases and moisture. Odors which are apt to affect the quality of milk are given off by

² The National Electric Code may be obtained upon application to the National Fire Protection Association, 60 Batterymarch Street, Boston, Mass.
³ Covert, Roy N., PROTECTION OF BUILDINGS AND FARM PROPERTY FROM LIGHTNING, U. S. Dept. Agr. Farmers' Bul. 1512, 32 p., illus.

manure and certain feed stuffs. The continuous breathing of foul air is not conducive to health in the animals. The purpose of a ventilation system is to remove the products of respiration, to introduce clean fresh air, and to keep walls and other surfaces and feed stuffs dry. Adequate ventilation is required by regulations governing the production of market milk.

The heat given off through the skin of the animals and in expired air warms the air in the stable which tends to rise. Fresh, cold air entering the stable is heavier than the stable air and falls to the floor. As it is warmed it rises thus getting up a circulation. All air contains moisture. As its temperature is increased so is its ability to hold moisture. Cool outside air brought into the stable and warmed, absorbs moisture from the stable air and from walls and other surfaces. If the ventilating system is properly installed and operated the temperature and circulation of the air in the stable can be controlled provided the barn is tightly and warmly built. A more comprehensive explanation of the principles of barn ventilation and the construction of barn ventilation systems is to be found in a bulletin on the subject issued by the Department of Agriculture.⁴

The chief difficulties with regard to the ventilation of these old bank barns was found to be, over-crowding of stock, in some instances an insufficient number of head, excessive dampness, the lack of or faulty location of air inlet openings, and construction and arrangement which makes installation of outtake flues something of a problem.

Over-crowding of stock results in the production of a large volume of foul air making necessary an abundant supply and good distribution of fresh air which is often difficult to obtain because of the arrangement and construction of the barn. Too small a number of cows means that each animal must heat an undue volume of air. In the locality under construction the volume of air space in the stable should not be more than 900 nor less than 500 cubic feet per cow.

Dampness is due to seepage of ground water through floors and masonry bank walls and to the condensation of moisture in the stable air as it comes into contact with cold surfaces, principally the masonry walls which lack insulating value. The complete remedy lies in damp-proofing of the walls, the addition of insulation to the wall construction, and proper ventilation. The prevention of seepage, and the furring of the outside walls with insulating material, are impracticable in most instances because of the cost. In some cases the infiltration of surface or ground water might be overcome at comparatively little expense. Suggestions of value in this connection will be found in Farmer's Bulletin 1572.⁵

Depending upon the nature of the material, masonry walls transmit heat from 5 to 20 times more rapidly than does wood of the same thickness. In colder climates the insulating of masonry stable walls is necessary to the maintenance of proper stable air conditions. In the region included in this investigation it is desirable but not so essential, particularly when the walls are very thick. The construction should be tight so that there be no air leakage through joints in the masonry and around doors, windows, sill, etc. Wherever there is leakage of cold air there is apt to be

⁴ Kelley, M. A. R., PRINCIPLES OF DAIRY-BARN VENTILATION, U. S. Dept. Agr. Farmers' Bul. 1393, 22 p., illus.
⁵ Warren, C. M., MAKING CELLARS DRY, U. S. Dept. Agr. Farmers' Bul. 1572 p., illus.

condensation of the moisture in the stable air upon surrounding surfaces causing dampness and rotting of woodwork. Leakage of cold air lowers the temperature of the stable air and interferes with the control of air circulation by means of the ventilating system.

Windows

Good ventilation requires that there be free and evenly distributed circulation of air in all parts of the stable. It is difficult, and in many cases impossible, to obtain good circulation of air in bank barns because the openings through which air might enter the stable generally are all on one side. There are many mild days during the winter when ventilation may be had by means of open windows but, to be effective, there must be openings on opposite sides of the stable. Even with a fairly strong wind air will not enter the



Fig. 7A. An example of a bridged driveway

windows on one side in any volume unless an equal amount can escape on the other side. Usually the bank side offers the greatest difficulty in providing additional windows for ventilation. When the entire or greater length of the stable wall is below grade the method shown in Figure 4 may be employed. Windows below the grade level and opening into areas may be installed but they are not advisable because the areas may collect water, or become filled with snow.

When the bank wall is but partly below grade windows may sometimes be installed between the grade and the mow floor level. Where access to the mow floor is by a bridge or embanked driveway the wall under it is without windows and it is usually at this point that light and ventilation in the stable are most needed. If the approach consists of a bridge, windows may be installed under it as shown in Plate 7-A. In many instances a filled-in driveway can be cut away for a distance of eight or ten feet from the wall and a bridge erected to span the cut. Windows

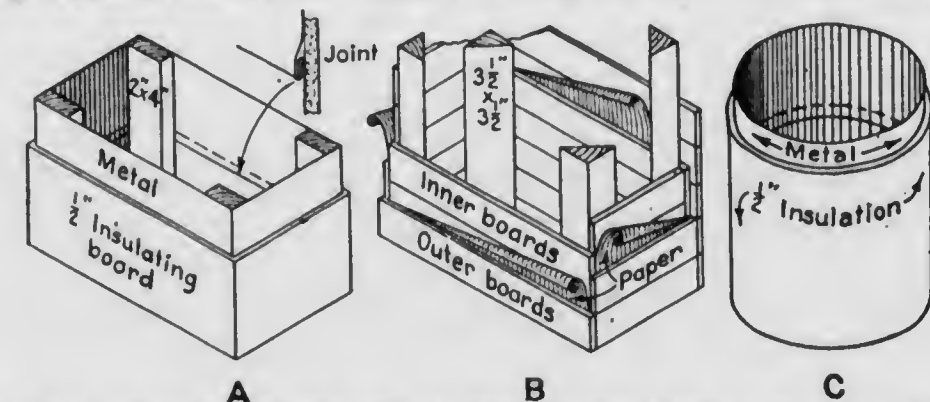


Fig. 6. Construction of outtake flues. A—rectangular metal flue on wooden frame and covered with insulating board. B—rectangular wooden flue of matched lumber and paper. C—insulated round metal flue.

in such a position do not add much to the lighting of the stable, but aid greatly in obtaining air circulation. All windows should be hinged at the bottom and drop inward at the top with check pieces at the sides to direct the incoming air upward. In many instances where the bank wall

is entirely or mostly below grade the bank may be cut back 8 or 10 feet and deep enough to permit of the setting of windows in the wall, as shown in Figure 5. A bridge to the mow floor could be built to replace the drive.

Ventilation by means of open windows is permissible and even desirable during mild weather but when the outside temperature is below freezing, proper ventilation by this means is impracticable. The movement of air through open windows cannot be controlled without constant adjustment of the openings, so that even distribution of incoming air and maintenance of stable temperature are impossible, particularly in these old bank barns where the windows are generally confined to one side. To obtain proper ventilation during cold weather suitable intake and outtake flues, placed so as to produce even distribution of fresh air, are necessary. During mild weather, when window ventilation is permissible, intakes, installed where windows are not feasible, will aid in obtaining air circulation.

Outtake Flues

Outtake flues were entirely lacking in many of the barns visited. In most instances where outtake flues were found the installation was faulty. Generally the flues were but one-half the size required, were poorly built, many cracks through which air leaked, and had too many crooked runs and right angle turns. The location in many cases was such that, even had the flues been of proper size and construction, there would have been little or no air circulation along the bank side of the stable where it is usually most needed. The mow driveway and the necessity of keeping it free of obstruction frequently prevents the placing of an outtake so as to stimulate air circulation on this part of the stable. Where such a condition exists the proper installation of an electric fan would provide air movement. The location of outtakes depends upon the conditions existing in the particular barn. In general there should be one outtake to every 10 to 12 cows so placed as to produce equal distribution of incoming air.

Size of Flue

The size of the outtake flues depends upon the height and the temperature conditions in the locality. The height of the flues is fixed by the distance from the ceiling of the stable to the ridge of the roof which, in most of the barns in the region studied, is between 30 and 40 feet. According to a recently developed method of determining flue sizes the area of outtake flue, in the region under consideration,

should be 38 square inches per head of stock for a flue 30 feet high and 33 square inches for a 44 foot flue. Areas of flues of heights other than those given may be obtained by the formula $A = \frac{163 \pm 1.6}{\sqrt{H}}$

(Continued on Page 11)

Proved on your Research Farm



Larro Dairy Ration has been improved. Your Larro Research Farm has scored a noteworthy triumph. The feed which for seventeen years has been the standard by which all other feeds have been judged is even better than it was before.

The phrase "As Good As Larro" must now take on a new meaning.

The new Larro by virtue of higher milk production has a greater feeding value than the old Larro by more than \$3.00 a ton, based on present values for feed and milk,—\$3.00 a ton more profit for Larro feeders, and the improved Larro costs no more.

This improved Larro was not a stroke of chance. For more than seventeen years, the Larro Research Farm has been at work checking and testing feeds. Theories about proteins, vitamins, minerals and roughage have been tested by actual feeding trials under practical farm conditions in more than one hundred different formulas. The improved Larro has been under test for five years against many other combinations of feeds. Under long and short time tests and under many varying conditions its greater feeding value has been proved beyond question.

The improvement is not sensational—no feed could be sensationally better than the old Larro—but **\$3.00 a ton added to the high profit over feed cost that Larro feeders have already been getting is a notable accomplishment.** As a uniform health-building feed the new ration is the same as Larro always has been.

The Larro Research Farm is your farm. It is working for you

Where tests are made under actual farm conditions.



Each cow is fed individually.

continuously, searching for better feeds but in no case will a change be instituted until it has been proved definitely to be a change for the better.

We repeat our promise of many years' standing. **The Larro Formula will not be changed unless a better one can be found. If it is changed you will be told about it. The quality of Larro will never be lowered as long as Larro is made.**

THE LARROWE MILLING COMPANY
DETROIT, MICHIGAN

Larro

Ask your dealer about Larro Family Flour

FEEDS THAT DO NOT VARY
FOR POULTRY—HOGS—DAIRY





Putting Up the Quarantine Notice

It used to be said that a child was sure to have certain infectious diseases at one time or another and so the sooner he took them the sooner he'd be finished with them and the family would be done with the trouble.

As a matter of fact, there is no such necessity and there is no communicable disease that a child is not better off without. Quarantine is our protection against wholesale spread through the school or neighborhood of the so-called children's diseases.

No mother who stops to think for a moment would be willing to endanger other children to an exposure to a disease from which she would wish to protect her own child. Yet curiously enough some people have an idea that a disease hasn't really become infectious until the doctor arrives, looks at Johnny, and pronounces it a genuine case of measles or mumps!

Notifying the doctor or health officer as soon as you have dark suspicions may mean having a measles sign nailed on your door, but remember your gratitude for the warning of the diphtheria placard on your neighbor's door. She also has been conscientious in not only notifying the doctor or health officer, but in doing it promptly.

It is better that a child miss a day or two of school while his parents make sure that his suspicious symptoms are not going to prove to be one of these infections than that he generously spread the infection among all of his school-mates.

Watch the symptoms. The child with a rash or breaking-out on the skin belongs at home, unless a physician pronounces it not communicable, says Dr. Harold B. Wood, in Hygeia. When children vomit or develop a cough or sore throat they should be kept at home. That simple sore throat of today might be something quite different by tomorrow!

Fluffy Bed Covers for Warmth

Science has explained many superstitions. In recent years it has even attacked old superstitions about bedding. Although good housewives have known for years that light bed covers are warmest, many people still think heavy covers are best, and on cold nights pile on all the weight they can find. Experiments prove, however, that several layers of light, fluffy blankets hold the heat better than heavy, tightly woven blankets and quilts. This is because still air does not conduct heat. When chambers of air are imprisoned in the bedding, they retain all the warmth of the body. Down or wool puffs and fluffy all-wool blankets are the warmest bed covers because they contain many tiny chambers of still air. These air chambers are formed in the spinning and weaving when the wool fibres, naturally elastic, spring back from each other, leaving tiny air spaces. If these chambers of still air are forced out of a blanket, it will become heavy and lose warmth. In selecting your winter supply, choose blankets that are light weight, spongy, slightly wiry, and that have a deep fuzz or napped surface.

Never let woolen garments freeze after laundering, as it is likely to cause shrinking.

Tempering Down the Appetites

The best pie in the world, the prettiest china and the most attractive dining-room count very little in making a meal a success if it is accompanied by family quarrels. Parents who fall into the habit of giving way to strained nerves by unpleasantness and bickering at meals usually are not aware of the far-reaching and harmful effects this has on their children. Meals should be pleasant social functions, not battlegrounds. Father may feel relieved temporarily if he takes out on mother at dinner what he feels toward a business associate, and mother may think that she is justified in making a cutting remark in return, but neither

realizes how disastrous the effects may prove. Take advantage of meals as chances to knit the family together; don't spoil the happiness and therefore the appetite and digestion of the children, and do not cause them distress. The child who must sit by day after day to see and hear his parents quarrel is robbed of a sense of security that can be had only when harmony exists. His natural faith in the two great authorities in his world is badly shaken when he sees them quarreling; and the confusion this produces may be decidedly harmful. For the health, happiness, and future success of children, parents will do well never to combine tempers and food.



The Philadelphia Inter-State Dairy Council greets its friends and wishes them health and happiness through out the coming year.

Putting the Right Food Forward Into the New Year

I will strive to instill good health habits in my family without unpleasantness or coercion. Exercise out-of-doors will be made a pastime rather than a drudge. Cleanliness is the mark of each person's self-respect. As a grown-up I will set an example to the children having an ample amount of sleep.

I will help to make mealtime a social occasion for the whole family. This means that we will direct our talk along pleasant lines with interest shown in each person's activities. We will under no circumstances permit mealtime to become merely a period of repression and correction.

I will try to serve meals at regular hours. I want the co-operation of my household in assembling together promptly for meals at a stated time each day. This is important in our keeping fit.

I will encourage good manners on the part of my children. As imitative youngsters they are quick to adopt the tone of voice and the attitude of their father and mother. I want to be sure that querulousness and impatience are not an echo. Strangers may be new friends, and we will treat each other with not less courtesy than a stranger.

I will recognize that each member of my family regardless of age has certain inalienable rights as an individual. These rights we will thoughtfully respect in each other's property and actions. We will be giving rather than taking. Our position as fathers and mothers and sons and daughters will not make of us either tyrants or martyrs.

I will strive toward making our home a co-operative center of happy activity for both work and play. My children may here learn to shoulder responsibility, to rub elbows without friction, to love people, and to know nature. Lastly, I want to give them the security of knowing that under this roof they will unfailingly find friendly criticism and appreciation.

"My Favorite Recipes"

Goose Filled With Fruit

The homely but interesting goose which has put to flight so many small members of the family is becoming quite popular for its food value. For a long time, this fowl has been valued by the housewife because it gave her lovely soft pillows and cushions, the prize "spare-room" bed.

But filled with fruit for the guest dinner, the richness and flavor becomes just right. Try it.

Weight (depending on size of family)
Tart cooking apples, coarsely chopped for filling.

1/4 to 1/2 lb. large size prunes (soaked over-night).
Season with salt and pepper to taste.
2 level tablespoons butter (mixed with the apples).

When goose has been cleaned and fully prepared for cooking, fill with the apples, placing a large prune here and there through the apples, sew up and cook as usual. You will find the fruit flavor adds much to the fowl as well as the gravy. And your guests will talk of the delectable dinner you served them.

Lima Bean Soup

A satisfactory and nutritious luncheon dish to be served if the children can run home from school for their noon-day lunch; also fine for the hot lunch at school, or for supper when the day's work is done and something hot is relished at the evening meal.

3 cups cooked lima beans
2 pts. milk
2 sliced onions
2 stalks of celery
1 1/2 cups stewed and strained tomatoes
1 tbsp. green pepper (if available)
salt and pepper
2 level tbsp. butter
2 tbs. flour

Put beans, onion and celery in sauce pan with a little water, simmer about 30 minutes. Rub through a sieve, add the tomato and pepper. Season to taste with the salt and pepper and butter and flour cooked together. Have milk hot in double boiler. Add the beans, etc., stirring well. Serve with crisp crackers or toast.

A Raw Pork Caution

A warning against eating uncooked pork has been sent out by Dr. J. Moore Campbell, chief of the Pennsylvania Bureau of Communicable Diseases who makes it plain that eating raw pork in any form is to be avoided.

"In this season of the year hogs are home-butchered for family consumption. The tendency on the part of those preparing the meat and its products, especially the mixing of sausage, frequently leads to consuming some of it while still in the raw state.

"Others are likely to use smoked sausage as a food without first subjecting it to the fire. These practices carry the possibility of infection from the trichinosis parasite which is sometimes found in hogs. A score of cases reported in Pennsylvania were traceable to this source. If only ordinary precaution had been used, not one of these cases need have occurred."

So cook all pork before eating, and then give yourself over in complete safety to the enjoyment of one of the most tasty of all meats.

The Common Cold

"Mr. Cold, you can't catch me!" The children had written their own play and were giving it at school. This had meant a study of the causes of colds and the young people were learning to avoid the things that we say "give us colds."

If we all could take the children's slogan and avoid "taking colds" what a marvelous winter we would have. Let us study the subject for ourselves.

Wet feet, drafts, uncomfortable and sometimes harmful as they may be, do not alone produce a cold. A common cold is caused by germs which lodge in the mucous membrane of the nose and throat.

Which germ, or whether it is one peculiar to colds, the scientists are now working to learn.

The wet feet and draft may detract somewhat from our vigor and so make us more susceptible to the germs, but without these little fellows getting a foothold there would be no cold. A current of cold air on the skin chills it, sends the blood back to the interior, and causes a congestion of some of the organs there, notably the mucous membrane. The mucous membrane in the nose swells with the increase of blood until it sometimes fills the nasal cavity so as to stop the passage of air. From the increased blood supply an increased quantity of mucus is secreted, in which the germs multiply. When this is temporary we say, "Oh, it is just a cold."

Fresh Air Helps Colds

To prevent a cold our chief concern should be fresh air. No matter if the air blows in directly from the doors and is colder than we like: it is better for us than the warm air contaminated with germs from our coughing and sneezing neighbors. All too often during the winter weather our homes are too warm, the windows are tight shut, the stoves or furnace going full blast, and the temperature in the neighborhood of 80 degrees, and the air very dry. It has been found that the best temperature for a room is between 60 and 70 degrees F., and the dryness can be overcome by that little pan of water on the heater.

When germs get caught on our mucous membrane it is often possible to wash them out before they have time to get a deep lodgment. To do this, fill a drinking glass with water (this is better if a little salty) put the nose into it and tip it up gently as if going to drink. Let the water run into the nose and out the mouth. This will remove a large number of germs and make an attack of cold less likely. If the germs have gained lodgment, vigorous treatment will be needed to remove them and cure the cold quickly. To aid this the body should be given the best possible chance to fight the infection. So contracting a severe cold it is desirable to go to bed. Food should be taken as the appetite dictates, plenty of water should be drunk, and the windows should be kept open. If people on contracting cold would go to bed for three days, they would not only recover more rapidly, but they would not spread the infection to others.

Prevention is Better Than Cure

But prevention is always better than cure and much may be done to prevent colds by hygienic living. Avoid undue fatigue, live in the open air as much as possible, avoid drafts, avoid over-eating and use fruits, vegetables and milk; drink plenty of water, attend to proper elimination from the bowels. If such habits do not entirely prevent colds they will doubtless enable one to recover more quickly. Some physicians advocate inoculations against colds and while some people are helped by them, others are not, so they are of doubtful value.

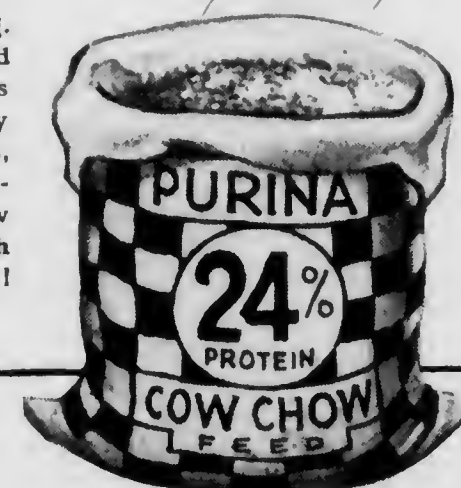


—and tell dad to remember me to the cows that sent me to college.

A LETTER from Son! As Mother reads, Dad learns that his boy has just earned a grade of 94 in "Feeds and Feeding" . . . that he has just picked up an inside pointer on the curing of alfalfa . . . that he has just the most lovely new girl . . . and finally, at the close . . . "tell Dad to remember me to the cows that sent me to college." This good-natured remark probably takes Dad back to the last words he said to Son the day he left, "Boy, it's the cows, not me, that are sending you to college."

Son will bring many new things back home. Among them, of course, will be new pointers on ways of feeding. He will know why Cow Chow is such a good feed, though Dad long ago learned the thing he wanted to know about Cow Chow . . . simply that it's just good feed! . . . This he learned by giving Cow Chow the severest test

known . . . the test of actual feeding. What he discovered can best be told by reprinting in part a recent news item which read: "A national survey of 323,801 cows, fed all sorts of feeds, reveals that Purina Cow Chow produces one extra quart of milk per cow daily at no extra cost." That's enough to send hundreds of Sons to college!



To a considerable extent the body can be toned up to resist the germs of cold. Cool baths, cold sponging of the neck and chest, sleeping out of doors, studying and working in the fresh air are all fine preventive measures. But avoid the air contaminated by those who are coughing and sneezing with "the cold." Yes, it must be contagious. We all know of one member of a family with a cold and in a short time every one in the family has it. Schools can give the same story—one child at school with a headache and "running nose"—in a week almost every child, as well as the teacher suffering alike.

What a blessing if the parents of that first child had "self-quarantined" for three days. It is foolhardy to neglect a "cold." Recent studies, contrary to our

common belief, show that climate has apparently nothing to do with colds. The students of a University in California, where the climate is mild, suffer as many colds as do those of a University in Massachusetts where the climate is very severe.

Studies are now being made in two of our medical schools to determine ways to prevent and cure colds. Let us hope they succeed speedily.

Good Cows Pay Best

Dairy cows differ in their ability to pay the farmer good prices for his grain and hay crops. Low producing cows should be culled out to increase the value of the herd as a market for feeds consumed, say State College dairy specialists.

Philadelphia Inter-State Dairy Council

General Offices
Flint Building, Philadelphia.
A co-operative movement established for the dissemination of information and publicity pertaining to the production and distribution of dairy products and their food value in nutrition.

Affiliated with the National Dairy Council

OFFICERS
Dr. Clyde L. King, President
H. D. Allebach, Vice President
C. I. Cohee, Secretary
F. R. Ealy, Assistant Secretary
R. J. Harrison, Jr., Treasurer
George J. Hauptfuhrer, Assistant Treasurer

Departmental Branches
C. I. Cohee, Director Quality Control Department
Dr. E. G. Lechner, Assistant Director Quality Control Department
Lydia M. Broecker, Nutrition Department
Del Rose Macan, Dramatic Department
August A. Miller, Publicity Department

Eastern States Farmers' Exchange

How Much Remains?

After all, the part of the milk check which counts is the part you keep. If you exchange the whole check for labor, feed, taxes, and the other items of expense which recur with unbroken frequency on the modern farm, there is no opportunity to get ahead.

The size of the milk check is large or small depending upon the amount which you retain. It's not what you get, it's what you keep that counts. That is what the Eastern States means when it stresses so constantly the importance of purchasing supplies which will produce most per dollar invested in them.

Dairymen should aim to get back at least four dollars in the milk check for every dollar they invest in grain for the milking cows. This they can do by using a quality grain ration to supplement abundant supplies of good roughage fed to high producing cows. The question of providing such roughage through bumper crops produced economically on the farm is as much a concern of the Eastern States as it is of providing the grain ration.

The Eastern States in addition to making available feed, fertilizer, and seed capable of increasing the farmer's net income by increasing his output from each dollar invested in these supplies must make every effort possible consistent with economical service to help farmers use these supplies to the full extent of their potentialities.

Partly to supply just such information to its members and partly also to keep them informed about organization problems and accomplishments, the Eastern States Farmers' Exchange published its monthly paper, the Eastern States Co-operator.

The January Eastern States Co-operator contains articles dealing with many questions vital to the interests of eastern farmers seeking to obtain the greatest net profit from their farm operations, articles of interest to poultrymen and orchardists as well as to dairymen. There are extra copies available for distribution. If you are making farming your profession, send for a copy.

Eastern States Farmers' Exchange

A non-stock, non-profit organization owned and controlled by the farmers it serves

Headquarters: Springfield, Massachusetts

Dairy Council Holds Annual Meeting

The second annual meeting of the Philadelphia Inter-State Dairy Council, under its corporate charter, was held in its offices in the Flint Building, Philadelphia, Penna., on December 20th, 1929. The session was presided over by Dr. Clyde L. King, president.

There was a representative attendance, either in person or by proxy of the membership of the dairy farmers and the distributing groups.

Formal reports of the activities of the Council during the past year were presented by Robert W. Balderston, executive secretary and the formal report of the auditors, McGee, Fleisher & Co., as to the financial standing of the Council were presented and approved.



C. I. COHEE
Secretary Philadelphia Inter-State
Dairy Council

Mr. Cohee, the newly elected secretary of the Philadelphia Inter-State Dairy Council, has been in charge of the Quality Control work of the Council for nearly nine years. He was formerly engaged with the E. I. duPont Company, as Agricultural Demonstrator and Advisor and prior to that time was a Senior Dairy Herdsman of the U. S. Department of Agriculture, Bureau of Dairy Industry; Farm Manager for Henry Morgenthau, Jr., Hope-well Junction, New York; Dairy Herdsman, Pennsylvania State College. Mr. Cohee was also a cow tester for three years for one of the first and largest cow testing associations in the state of Pennsylvania.

Election of Directors and Officers

Following the customary nominations the following directors of the Council were elected:

H. D. Allebach
Frank Baldwin
R. F. Brinton
E. H. Donovan
William Grison
R. J. Harrison, Jr.
E. Nelson James

Dr. Clyde L. King
O. M. T. Laudenslager
Harry Scott
Frederick Shangle
A. H. Wadlington
F. P. Willis
B. M. Woodward

Penna. Farmers Sell \$38,000,000

More than one-third of the marketable milk and over one-fourth of the total milk produced in Pennsylvania is being sold by farmer-owned cooperative marketing associations.

In 1926, 26 per cent of all the milk and 33 per cent of the marketable milk was sold by the cooperatives; in 1927, 32 per cent of the total output and 40 per cent of the commercial output, and in 1928, 30 per cent of all the milk produced and 37 per cent of the marketed product.

The major part of the milk sold co-operatively has been marketed by three inter-state associations which operate in Pennsylvania: one in Pittsburgh, another in Philadelphia and the third in New York City. These three organizations handle approximately 94 per cent of all the milk sold by cooperative associations. The balance of the cooperative sales are made by local milk plants and cooperative creameries.

The value of dairy products sold co-

Following the election of the directors, officers were elected:

President.....Dr. Clyde L. King
Vice President.....H. D. Allebach
Secretary.....C. I. Cohee
Assistant Secretary.....F. L. Ealy
Treasurer.....Robert Harrison, Jr.
Assistant Treasurer.....George J. Hauptfischer

Robert W. Balderston, former executive secretary formally stated that, he, having accepted the position of manager of the National Dairy Council, would not be a candidate for re-election.

The following members of the Advisory Board of the Council were also elected:

Dr. E. W. Adams.....Dr. Wilmer Krusen
Dr. Theodore Appel.....Mrs. W. E. Lingelbach
Dr. Emily Bacon.....Mrs. S. Blair Luckie
Miss Madge T. Bogart.....Dr. E. V. McCollum
Dr. A. A. Cairns.....Dr. J. H. Minnick
Mrs. Henrietta Calvin.....Miss Anna B. Pratt
Dr. Oliver P. Gorman.....Dr. Carson Ryan
Dr. A. J. Gerson.....Mrs. George Wertaner
Dr. Ralph D. Hetzel.....Dr. Joseph Willis
R. E. Irwin.....Dr. Lucy Wilson
Dr. Clyde L. King

Following the approval of the 1930 budget, various problems and programs for the conduct of the Council affairs were discussed.

Prof. F. F. Lininger of Pennsylvania State College, presented some further studies of the recent survey on the consumption of milk in the Philadelphia area while C. I. Cohee and F. R. Ealy, made a brief analysis of the U. S. Public Health Service Milk Code.



F. R. EALY
Assistant Secretary

Mr. Ealy was born and reared on a dairy farm in Mercer County, Pa. He graduated from Mercer High School. Taught rural school for two years and then entered Penn State College. Graduated in the four year course in dairy husbandry. Worked as a hired hand on a farm; also did advanced registry testing for Penn State College. In 1925 he came to the Philadelphia Inter-State Dairy Council as a field man in the Quality Control Department, which position he occupied at the time of his election as assistant secretary of the Dairy Council.

Farmers' Markets Increase in Penna.

"While in many States retail farmers' market have become less numerous and less important, in Pennsylvania they have been steadily growing in size and number despite the competition of chain grocery stores which in recent years have distributed fruits and vegetables extensively," states H. A. Hanemann, Bureau of Markets, Pennsylvania Department of Agriculture.

"The farmers' market has been an established institution in nearly all of our cities since colonial times and so well entrenched is the 'market habit' among Pennsylvania housewives that local farmers are able to sell direct to the consumer a larger quantity of their produce each year," the market specialist continues. "Pennsylvania is noted for its excellent farmers' markets, of which there are approximately 125 in the Commonwealth. Many of them are curb markets, but at least seventy are under roof and are known as market houses.

Four New Market Houses

"During the present year, four new market houses in different cities have been erected or are under construction to provide additional facilities to farmers for the sale of their produce and to consumers for the purchase of fresh farm products. The first one to be placed in operation was a new farmers' market at Chester, Pa., which was erected at a cost of \$95,000. It is a combined farmers' and dealers' market which is endeavoring to establish a real farmers' retail market in a city where no farmers' markets have been operated since 1900.

"The second new market house was opened in the 69th and Market Street section of Philadelphia and was erected at a cost of approximately \$200,000. This market is principally a dealers' market, but it is attended by many farmers for two days of the week.

"A suburb of Philadelphia, the borough of Jenkintown, provided the third market house equipped with 82 farmers' stalls and erected by a company capitalized at \$100,000. This market was opened on October 18 and has the distinction of being the first farmers' market under roof in any suburb of Philadelphia.

"The fourth farmers' market is now under construction at Williamsport, Pa., and will cost approximately \$250,000. It will house the old curb market of that city and will contain nearly 275 stalls.

"Since all of the new market enterprises in this Commonwealth, which are mentioned here, have been undertaken by private capital, not public funds, it is evident that the demand of consumers for markets where they can buy fresh products direct from the grower is increasing. Reports from all market companies and municipalities which have maintained their market property and equipment in good repair state that the attendance of farmers at their markets and the amount of produce sold so far this year has been greater than in any previous year."

Caribou Rosalie Continues on Test

Guernsey breeders are watching the sixth official record which nine year old Caribou Rosalie 131869 has started. The first five records of this long time official record maker average 810 pounds of butter fat, making her the first cow in the breed to attain that five year average.

In sixty-one days on the new record Rosalie has 3291.3 pounds of milk and 169.76 pounds of butter fat to her credit. She is owned by Thomas F. Branson, Bryn Mawr, Pennsylvania.

Suggestions For the Improvements of Dairy Barns

(Continued from page 6)

in which A is the required area in square inches per head of stock, to the mean January temperature for the locality, and H the height of flue in feet. In this section, where the mean January temperature is 30° the formula becomes $A = \frac{211}{\sqrt{H}}$

Construction of Flues

Flues must be airtight, or they will not draw properly, and well insulated to minimize condensation of moisture on the interior surfaces. They may be of any durable material but matched lumber or rust-resisting metal are generally used. The construction of wooden and metal flues is illustrated in Fig. 6. (See Page 6). The metal lining of flues A and C protects the insulating material from the condensation which occurs to some extent in all outtake flues. The frame of 2x4 in. studs in A is less desirable than a frame of triangular pieces as shown in B as it offers greater resistance to the passage of air. However, unless a power saw is available either on the farm or at the lumber yard, the ripping of square lumber is hardly warranted.

As cross bracing or cleats on the inside of the flue tends to retard the passage of air, horizontal joints in the metal should be made as in the small detail in A. This joint, if well made, is practically air tight and will not permit condensation drip to leak into the installation and impair its value. The waterproof building paper shown in B prevents air leakage through the joints of the boarding. If all the lumber is painted or treated with creosote the life of the flue will be greatly increased.

The round flue, C, is more efficient than one of rectangular section but is not so readily built by the average workman. The flue is made in sections and put together with slip joints, each section being fitted into the one below so that condensed moisture will flow to the bottom of the flue.

Farmers Fined Selling Milk of Low Quality

Farmers who deliver to milk receiving stations or milk dealers, watered milk or a product otherwise below the legal requirements, are being prosecuted in Pennsylvania.

Recently, the Bureau of Foods and Chemistry, Pennsylvania Department of Agriculture, has received a number of complaints regarding low quality of milk. Upon investigation, the Bureau found the source of the trouble in some instances to be the farmer who delivered milk deficient in butterfat and solids.

"Farmers are not exempt from the law governing the standard of milk sold any more than the distributor or dealer," the Bureau explains, "Where there is any question about the quality of the milk, producers should have tests made for their own satisfaction and protection. The delivery of a low quality product, whether watered or deficient in fat because of inefficient cows, cannot be overlooked in the rigid enforcement of Pennsylvania food laws."

Feed Dairy Cows Right

Milk production and dairy profits are always in close relationship with the kinds and amounts of feeds consumed by cows. Much feed and labor are wasted through wrong methods of feeding.

Registered cattle with long-time records in their pedigrees are bringing the most money.

Pasture-Improvement Work Started In Five States

The task of reviving old, worn-out pastures in the East and replacing the native grasses with improved varieties in the South is a job forage specialists of the United States Department of Agriculture have undertaken as a part of an extensive program of pasture improvement. Results already obtained show that application of fertilizer, reseeding, and getting rid of weeds are the first steps in reclaiming run-down pastures.

During the past year cooperative pasture experiments have been started in Pennsylvania, Michigan and Georgia. Similar work will be started in Louisiana and Mississippi next spring. Pasture experiments in Florida have been under way for the last few years. Other States are anxious to cooperate with the department as soon as arrangements can be made to begin the work.

In these experiments various grasses are grazed under similar conditions and their value compared. Then the same grasses are grazed under different conditions to determine which system of grazing is best. In many cases grasses and legumes new to the region are added and their growth is carefully measured in terms of gains in the animals pastured. Numerous tests designed to ascertain the kind and amount of fertilizer to use are included in the experiment.

Records from New York show that cows on pasture during the summer months returned a profit of 24 cents a day on the milk sold. During the winter, because of the high cost of feed, there was an actual loss of 4 cents a day. This is due in large measure to the small labor cost of maintaining pastures. Results in Pennsylvania show that the labor cost of producing 1 ton of digestible nutrients in a hay-grain rotation is twenty times as much as the labor cost for the same amount of feed in the form of good pasture. Experiments in Florida have shown a net return of \$7.82 per acre from improved pastures grazed by beef steers.

An increase of 30,000,000 acres in the area of improved pastures in the humid Eastern States has been suggested as a possible remedy for overproduction of some of the staple crops. This would serve the double purpose of preventing surpluses and at the same time put the land to a profitable use.

Mistakes Go On Forever

"Men may come and men may go, but mistakes go on forever."

Such were the thoughts of one of the city librarians yesterday when a timid-looking girl of perhaps nineteen years accosted her, asking if she had a book entitled "Oranges and Peaches."

A most diligent search proved that no such book was in the possession of the library.

"Are you sure that 'Oranges and Peaches' is the title of the book?" asked the librarian.

"Yes, I believe that's what the professor said to get," was the answer.

"Who is the author?"

"Darwin."

Imagine the surprise of the librarian when it "dawned on her" that the book desired was Darwin's "Origin of the Species."

Uncle Ab says no two persons ever saw a thing exactly the same, and maybe the other fellow's view is the better one.

Uncle Ab says don't try to fool anybody; you can't fool a wise man; and fooling the other kind doesn't get you anywhere.

In 3 years

3 AMCO RECORDS



Mr. Carter's figures on 25 cows, twice a day milking. Av. lbs. milk, 13,046; av. lbs. fat, 413.5; return for \$1.00 spent for feed, \$3.12; value of product over feed cost, \$239.88. Alice Waverly Netherland 587071 (pictured) gave 18,479 lbs. milk and 551.7 lbs. butter fat during this test.

FOR the last three years the leaders of the Washington County Pa. Cow Testing Assoc. have been Amco-Feeders. In fact, of the ten high herds each year, 90 per cent have made their records on Amco Dairy Rations. Such consistent performance is not the result of accident.

Three Amco Feeds helped Mr. R. L. Carter set the new record. Amco 20% Dairy furnished the right quantity of milk-making nutrients to go with fresh pasture and good leguminous roughage; Amco 24% Dairy added enough protein to keep up the milk flow when the quality of roughage was lower; and Amco 12% Fitting Ration economically developed the young stock, and conditioned the herd sire and dry stock.

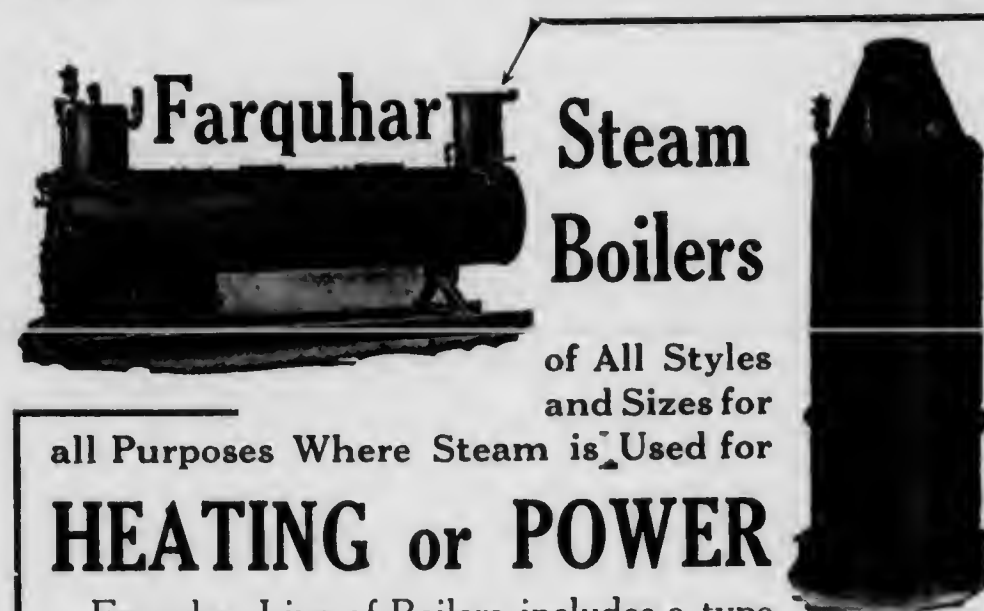
With highest production, Mr. Carter had lowest feed cost, only 87 cents per 100 lbs. milk. He says: "Amco Feeds have kept the production of our herd up to a high mark throughout the year, as well as keeping the cows in good condition for next year's work."

Your nearest Amco Agent will tell you more about these open formula feeds.



DIVISION OFFICE:

MUNCY, PA.



Farquhar Steam Boilers

of All Styles and Sizes for all Purposes Where Steam is Used for HEATING or POWER

Farquhar Line of Boilers includes a type or size for every purpose—Industrial, Laundries, Creameries, Dairy and Milk Plants, Mushroom Houses and all-around General Heating. These Boilers will furnish abundant steam and Hot Water. Burn Wood, Coal or Oil. Quick and Easy Steamers.

All Farquhar Boilers are built in strict accordance with the A. S. M. E. Specification. Thoroughly tested and can be shipped on quick order. Write for Bulletins stating type and size needed.

We also build Sawmills, Threshers, Hay Balers, Cider Presses, "Non-Wrap" Manure Spreaders, Interchangeable Grain Drills, and Farm Implements. Catalogs on request.

A. B. Farquhar Co.,
Limited
Box 461
YORK, PA.



Plow with the Farmall!



The Farmall pulls a two-bottom plow as ably as does any other tractor. Unlike other tractors plowing is but the commencement of the Farmall's yearly labors. As the season progresses you can shift from one important job to another with amazing speed. After plowing, tilling, seeding, planting row crops (with a four-row planter), cultivating row crops (with two or four-row cultivators), mowing, raking, loading hay, harvesting and doing all of your belt jobs around the farm.

You can't beat a Farmall. It turns short, handles easily, operates economically and requires very little attention.

Let your nearest dealer demonstrate it to you.

The International Harvester Co.
of America

Philadelphia Harrisburg Baltimore

National Dairy Association

The annual meeting of the National Dairy Association, held in Chicago on December 6th, 1929 was well attended. President Hill in his review of the year's work made particular mention of the widespread cooperation from many sources which had made the 1929 Exposition an outstanding success. He said that St. Louis had fulfilled every promise to support the Exposition and predicted a bright future for it.

The Secretary's report reviewed the various departments of the Show calling especial attention to the attendance of 279,309 and the record-breaking total of 1,458 cattle exhibited. He said that 46 out of the 48 states, Cuba and the provinces of Ontario, Saskatchewan and Alberta were represented in one or more departments of the Exposition.

Eleven directors were elected as follows, the first seven being re-elected while the last four are new: E. W. Chandler, Creamery Package Mfg. Co., Chicago; Walter L. Cherry, Cherry-Burrell Corporation, Chicago; John T. Cunningham, Chicago, Ice Cream Manufacturer; Mrs. Nellie Fayban, Geneva, Ill., Jersey Breeder; T. H. McInerney, National Dairy Products Corp., New York City; M. D. Munn, National Dairy Council, Chicago; Dr. H. E. Van Norman, The Borden Company, New York City; John S. Ellsworth, Simsbury, Conn., Jersey Breeder; F. E. Murphy, Minneapolis, Minn., Hostein Breeder; W. T. Nardin, Pet Milk Company, St. Louis, Mo.; David G. Page, Topeka, Kans., Ayrshire Breeder.

At the meeting of the Board of Directors following the annual meeting, officers were re-elected as follows: Charles L. Hill, Rosendale, Wisconsin, president; Robert Scoville, New York City, vice-president; James A. Walker, Chicago, Illinois, vice-president and treasurer; L. U. Heller, Chicago, Illinois, assistant treasurer; S. H. Anderson, St. Louis, Missouri, executive secretary. President Hill appointed the Executive Committee for the ensuing year which organized by electing Dr. H. E. Van Norman, New York City, as chairman.

Report of the Quality Control Department Philadelphia Interstate Dairy Council

The following is a report of the work done by the Quality Control Department of the Dairy Council for the month of November, 1929:

No. Inspections Made.....	1,791
Sediment Tests.....	883
No. Permanent Permits Issued.....	139
No. Temporary Permits Issued.....	145
No. Meetings Held.....	2
Attendance.....	116
Reels Movies Shown.....	2
No. Man Days—	
Fairs and Exhibits.....	1 1/2
Bacteria Tests Made (Plants).....	39
No. Miles Traveled.....	18,561

During the month 11 dairies were discontinued from selling for failure to comply with the regulations—4 dairies were reinstated before the month was up.

To date 149,767 farm inspections have been made.

Prevent Milk Souring

Bacteria cause milk to sour. They can be controlled by thoroughly sterilizing utensils, removing loose dirt from the cow's udder with a clean, damp cloth before milking and cooling the milk as quickly as possible to 50° F. or less.

Big Cooperative Business in Fluid Milk

Two distinct types of associations have been developed by milk producers for the cooperative marketing of fluid milk. These are the milk-distributing association and the price-bargaining association. The milk-distributing association is more than a quarter of a century the older of the two, an organization of this type having been formed as early as 1882.

The associations thus classified are engaged in receiving milk from their members and in distributing it to dealers and consumers. The early associations of this kind consisted usually of a group of milk producers on the outskirts of small cities, who banded together for dealing direct with consumers. In the course of time these associations have increased as to membership and as to producing and consuming areas served, and in many cases the distributing has been largely to milk dealers, hotels and chain stores, rather than to consumers.

There were 114 associations of this kind listed by the United States Department of Agriculture at the close of last year. These associations did a business in 1928 estimated at \$150,000,000. More than 76 per cent of the total business represented fluid milk sales, 13 per cent represented cream sales, and less than 3 per cent, butter sales.

The average quantity of butter handled by the 42 associations reporting butter sales was 214,340 pounds and the average amount of cheese sold for the 17 associations reporting such sales was 442,003 pounds. Milk powder sales for 9 associations averaged \$95,414 and ice cream sales averaged \$98,622 for twenty associations. The larger distributing associations are located in New York, Los Angeles, St. Paul and Cleveland.

Price bargaining associations began to appear about 1909, since which time nearly fifty organizations have been set up. These associations rarely handle milk or any other dairy product. Their officers meet periodically with the milk dealers in the cities where the associations operate, and determine the prices that shall be paid by the dealers to the producers for various periods of time. Among the cities in which price bargaining is an important factor are Boston, Hartford, Philadelphia, Baltimore, Washington, Pittsburgh, Cincinnati, Detroit, Chicago, St. Louis and Seattle.

Milk and sweet cream sales for 1928 by members of price bargaining associations amounted to approximately \$200,000,000.

The total quantity of milk and sweet cream, in terms of milk, marketed in 1928 through cooperative milk marketing associations, amounted to nearly 11,000,000,000 pounds.

Silage Temperatures

When corn is placed in the silo, that near the surface where it is exposed to the air becomes hot. This has led to a somewhat general belief that the whole mass of silage becomes hot. However, such is not the case, according to experiments by the Bureau of Dairy Industry, United States Department of Agriculture. Thermometers buried at various places in the silage showed a maximum temperature of 100° F., which would be termed only lukewarm. Usually the silage reached its maximum temperature in 10 days or less, after which it gradually cooled. It is evident, the bureau says, that the formation of heat is insufficient to cause sterilization and thus aid in the preservation of silage. Rather, the silage keeps because of the exclusion of air and the action of acids.

Compensation, Automobile & Truck Insurance

Save Money by Giving Us Your Insurance

Our policies furnish Compensation protection as required by the Compensation Act. We protect the employer as well as his employees. We paid a dividend for 1928 of 18%. If interested, write for particulars.

I am interested in having Casualty Insurance for my help and protection for myself, 24 hours in the day. I estimate my payroll for the year at
Occupation
Name
Address

We write insurance in the state of Pennsylvania only.

WE WRITE A STANDARD AUTOMOBILE POLICY. IF INTERESTED, FILL IN THE ATTACHED BLANK AND WE WILL GIVE YOU FULL INFORMATION

Name Address City County
Insurance Begins 19 Expires 19
Business Mfg. Name
Type of Body Year Model No. Cylinders
Serial No. Motor No. Truck
Capacity Serial No. Motor No.

Pennsylvania Threshermen & Farmers' Mutual Casualty Insurance Co.
311 Mechanics Trust Bldg., Harrisburg, Pa.

Berks Co. Farmers Hold Get-Together Meeting

Sponsored by the Agricultural Extension Department of Berks County, and the Reading Chamber of Commerce, some 300 farm folk and city folk in that community attended a "get together" dinner at Reading, Pa., on the evening of December 9th, 1929.

Charles S. Adams, of the Berks County Agricultural Association introduced Thos. S. Milley, Sinking Springs, Pa., raiser of Ton Litters; Four members of the Berks County 400 Bushel Potato Club; and members of the Boys and Girls Pennsylvania Township Celery Club.

M. K. MacCallum, Wernersville, Pa., served as toastmaster who introduced the speakers of the evening.

Dr. C. G. Jordan, secretary of Agriculture, Commonwealth of Pennsylvania, in a brief address, stressed emphatically the necessity of producing quality products and that those products be the kind and grade that the consuming public wants. Proper grading and proper packing are important factors in today's marketing programs. We are disposed to find our markets filled with carefully prepared and carefully graded apples and potatoes which come from points outside our territory while home products less carefully graded and packed find little sale among our consumers.

Prof. Wm. V. Dennis, of the Department of Agricultural Economics, Penn State College, who has made an extensive survey of Berks County Rural Social problems made an interesting address on that subject.

The session on the whole presented a clearer portrayal of the agricultural situation in Berks County, on the whole and the influence of the city of Reading on the development and growth of agriculture within the borders of the county.

Average Farm Smaller But More Productive

The average size farm in Pennsylvania today is about 20 acres smaller than the average farm in 1870, but this smaller farm is producing more of the principal field crops than the larger farm in the past, according to the Pennsylvania Department of Agriculture.

Wheat is being produced today at the rate of about 112 bushels, potatoes 129 bushels, and feed crops 764 bushels per farm. In 1870 wheat was raised at the rate of 111 bushels, potatoes 70 bushels and feed crops 674 bushels per farm. This is a difference of one bushel of wheat, 59 bushels of potatoes and 90 bushels of feed crops in favor of the present-day average farm of 81.3 acres over the average farm of 103.4 acres in 1870.

The 112 bushels of wheat on the average farm now are being produced on one acre less than the 111 bushels in 1870. The 129 bushels of potatoes are being raised on only one-third of an acre more land than the 70 bushels in 1870. Finally, the increase of 12 per cent in the amount of feed crops grown on the average farm has been accomplished with only a 4 per cent increase in acreage devoted to these crops.

While estimates are not available back to 1870, it is undoubtedly true that the average farm today has a smaller acreage given over to fruit production and is producing less fruit. This is indicated to some extent by census figures. The amount of land used for the principal field crops increased from 6,256,000 acres in 1870 to 7,056,000 acres in 1925 while the amount of other improved land, that is, land used for orchards, improved pastures, etc., decreased from 5,260,000 to 3,073,000 acres during the same period.

Food Standards Approved

The Secretary of the United States Department of Agriculture on November 25, approved the definitions and standards for coffee, milk and mayonnaise revised and amended by the Food Standards Committee at its October meeting. These revised definitions and standards, given below, are now official for use in the enforcement of the Federal Food and Drugs Act, which is in charge of the Food, Drug and Insecticide Administration of the Department of Agriculture.

Milk is the whole, fresh, clean lacteal secretion obtained by the complete milking of one or more healthy cows, excluding that obtained within 15 days before and 5 days after calving, or such longer period as may be necessary to render the milk practically colostrum free. The name "milk" unqualified means cow's milk.

Goat's Milk and Ewe's Milk are the whole, fresh, clean lacteal secretions free from colostrum, obtained by the complete milking of the healthy animals and conform in name to the species of animal from which they are obtained.

Skim-milk, Skimmed Milk, is that portion of milk which remains after removal of the cream in whole or in part.

Pasteurized Milk is milk every particle of which has been subjected to a temperature not lower than 142° F. for not less than 30 minutes, and then promptly cooled to 50° F. or lower.

The Secretary of Agriculture also approved the recommendation of the Committee that the present definition of ice cream be deleted. The committee's reasons were that the present definition is not enforceable in interstate commerce because the subject has been specifically covered by laws in the various States and that the definition does not represent modern commercial practice in the manufacture of ice cream.

Dairy Products Account for One-Quarter of Farm Income

Last year the farm value of dairy products amounted to approximately three billion dollars, according to figures compiled by the United States Department of Agriculture.

"Many people fail to realize the size and importance of this industry," says O. E. Reed, chief of the Bureau of Dairy Industry. "It may help some to a clearer realization of the dairying business to learn that this three billion dollars amounts to 26 per cent or a little more than a quarter of the total value of all agricultural produce. The dairy cow accounts for about one dollar as against three by all the other animals and crops in the country."

"This development," Doctor Reed says, "has been accompanied by an ever increasing appreciation by the public of the value of milk and dairy products in the diet and their relation to the health and general welfare of the people."

In the relative stability of the dairy industry, Doctor Reed finds an obvious explanation of the increasing number of investors who are keenly interested in the industry. "The stability of dairying," he says, "has resulted in large investments of capital, not only on farms but in manufacturing, processing, and distribution plants."

It would be unfortunate, however, Doctor Reed points out, if the present favorable position of the dairy industry should lead many producers to expand their business or if it should induce many men not now in the business to enter the field. In recent years the domestic production of all dairy products has amounted to about 90 per cent of the demand, a close margin.



They Need The Minerals

IN COW-TONE

The Healthy Cow Brings A Healthy Profit

Cow Tone is an unexcelled conditioner for milk-producing cows. Indorsed by some of the highest veterinarians in the United States, it is recognized as an extremely valuable general tonic for the herd when under the strain of forced production.

Cow Tone supplies the mineral deficiencies so readily exhausted when a cow is yielding her maximum of milk, and if you are not already using it, we suggest that you buy a box at once and see for yourself why so many dairymen feed it to their cows.

Thousands of dairymen will testify as to its conditioning qualities, and thousands will also testify that they have bought it regularly for years. More than thirty years of experience lies back of our manufacturing process. More than thirty years of success for us is the result of as many years of success for those who have continually used Cow Tone.

Cow Tone is guaranteed to give satisfaction or your money will be gladly refunded.

Our Husbands Company
LYNDON, VERMONT



COW-TONE

There are four sizes of Cow Tone boxes: the small box, \$0.50; the large box, \$1.00; the 20-pound box, \$4.50; and the 40-pound box, \$7.50. Other O-I products include Cow's Relief Ointment, for udder and teats, small box, \$0.50 and large box \$1.00; and Calves' Cordial, an intestinal astringent for cows and calves, per box, \$0.50. All O-I products are sold at local grain stores, drug stores, and general stores or we will mail prepaid to any address in the United States on receipt of price.

FREE: Our new illustrated O-I Cow Book of 24 pages containing valuable information for dairymen will be mailed free to any address on request. Fill in coupon below and mail today. M. R. Sampson, O-I Products Co., 1234 N. 1st St., Philadelphia, Pa.

TRADE MARK **NICE** REG. U.S.A.

THE NAME TO GO BY—WHEN YOU GO TO BUY PAINT AND VARNISHES

Write for Color Cards and Booklet "Paint Pointers" EUGENE E. NICE COMPANY, Inc., PHILADELPHIA



Certified Pedigreed Field Seeds

We specialize in seeds of improved strains tested and recommended by state experiment stations. Our catalog tells about several new developments and reports recent yield tests. Every progressive farmer should see this. Write now for free copy.

K. C. Livermore Box I Honeoye Falls, N. Y.
CORN OATS BARLEY POTATOES CABBAGE BEANS PEAS WHEAT RYE

Registered cattle with long-time records in their pedigrees are bringing the most money.

Uncle Ab says that the best boss is the one who really knows what is going on and can therefore encourage good work.

New Federal Farm Board Dairy Advisory Committee

The Federal Farm Board has announced the personnel of the new Dairy Commodity Committee of the Board.

The group includes: Harry Hartke, Covington, Ky., president of the National Co-operative Milk Producers' Federation, and vice president of the Cooperative Pure Milk Association of Cincinnati; John Brandt, Litchfield, Minn., president of the Land O'Lakes Creameries, Inc., of Minneapolis, Minn.; Clifford E. Hough, Hartford, Conn., general manager of the Connecticut Milk Producers' Association; George W. Slocum, Milton, Pa., director of the Dairymen's League Cooperative Association, Inc., New York; A. G. Ziebell, Marysville, Wash., president of the United Dairy Association of Western Washington State; P. L. Betts, Chicago, Ill., president of the Chicago Equity-Union Exchange; and Emerson Ela, Madison, Wis., business adviser to the National Cheese Producers' Federation of Plymouth, Wis.

Each member of the new advisory commodity committee, with the exception of Mr. Ela, is a director of the National Co-operative Milk Producers' Federation, and Messrs. Hartke, Brandt, Hough and Slocum are members of the Federation's executive committee.

In accordance with the Agricultural Marketing Act under which the cooperatives of each industry choose their representatives on the commodity advisory committees subject to regulations of the Board as to the methods of choosing, the National Co-operative Milk Producers' Federation was asked to submit to the Board names of persons acceptable to the Federation for selection.

The Federation submitted a list of 27 names to the Board.

Grow Alfalfa Hay For Your Cows

Where alfalfa grows well it will usually outyield any other legume. It will make cheaper hay than a legume, which must be seeded every year. Although experiments have shown that well-cured soybean hay is equal in value to alfalfa for milk production, it must be remembered that soybean hay is not only likely to be stemmy but is also more difficult to cure than alfalfa. In view of the success at the dairy experiment farm of the United States Department of Agriculture at Beltsville, Md., in raising alfalfa on a heavy clay soil underlaid with an almost impervious subsoil, it is believed that alfalfa can be made to thrive on many soils often considered unsuitable. Alfalfa makes such a good and cheap hay, according to the Bureau of Dairy Industry, that dairymen are urged to not give up the idea of raising alfalfa until convinced of its impracticability either by trial or by consulting some reliable authority.

Feed Good Cows More

One cow often eats the profits made by another. Feed each cow according to her production. A high producing cow needs much more grain than a low producer.

Pick Your Victims

"So you got a big fine for smashing up some one's car? I thought you said you had a friend at court who would fix things for you?"
"Just my luck. He was the fellow I ran into."—Judge.

Sell cows that test low in butterfat; get high-test cows in their place, and increase the herd average.

BABY CHICKS

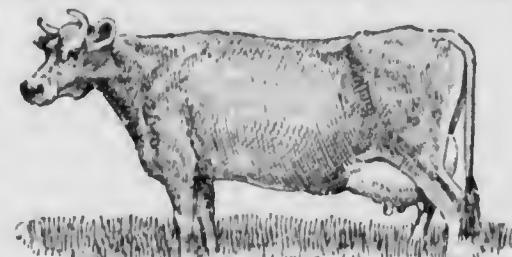
Big Sturdy and Healthy CHICKS

We specialize in BARRED ROCKS for Breeders during Broiler Season

We use our Best Breeding Stock
The best is always the cheapest
Let us quote you before buying

ELY BABY CHICK HATCHERY
Ingleside, Md.

INVIGORATOR



Dr. Daniels' Cow Conditioner

THE NEW MINERAL TONIC
Less Weakness More Milk
Better Cows and More Profit

Prevent the run-down conditions of winter by giving this new MINERAL TONIC in the feed
HEALTH for Your Cow is the Secret of Profit

Send for Free Samples

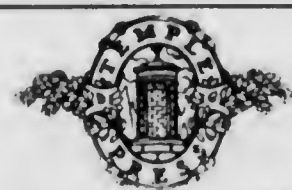
and

DR. DANIELS' UDERKREAM

For Cow Bag and Teats

Dr. A. C. DANIELS, Inc.

172 MILK ST., BOSTON



Let Us Design Your Stationery

Horace F. Temple
Printer

Bell Phone No. 1
WEST CHESTER, PA.

ALFALFA & CLOVER HAY
First or second cutting Alfalfa, Clover and Timothy Hay. Straight or mixed cars. Personal Service.
HENRY J. JARVIS, 121 Roosevelt Ave., Syracuse, N. Y.



GILLETTE CLIPPING MACHINE CO.
129 West 31st St., Dept. 14, New York, N. Y.
45 Years Making Reliable Clipping and Grooming Machines.

High Grade Dairy Cows

in HIGHTSTOWN, N. J.
We handle all kinds of cattle
Holsteins—Guernseys—Jerseys
A Specialty

All cows tuberculin tested and sold subject to a 60 or 90 day retest and fully guaranteed in every respect.
Free delivery anywhere.

B. ZAITZ & SON
202 Mercer Street
Phone 72 Hightstown, N. J.

Brookside Big Husky Quality Chicks make heavy weighers, good layers and profit payers. Extra large English White Leghorns and Barred Rocks Shipped C. O. D. under our 100% live Guarantee and special replacement offer at reasonable prices. Circular free.

BROOKSIDE POULTRY FARM
DEPT. 3
Chambersburg, Pa.

FOR SALE — "SELECT DAIRY ALFALFA" Clover, Timothy and Clover Mixed. Delivered prices quoted. Prompt shipment. **JOHN DEVLIN HAY CO.**, 192 N. Clark Street, Chicago, Illinois.

Many Changes in Use of Farm Land

The trend in size of the average farm in the Commonwealth since 1870, as revealed by census statistics, indicates pronounced changes in the utilization of farm land, says the Pennsylvania Department of Agriculture.

The average farm of 81.3 acres in 1925 contained 22 fewer acres than the average farm of 1870 and yet the average farm today has the same number of acres in principal field crops as the larger farm of 1870. Expressed in another way, the average farm now has almost one-half of its land in principal field crops while the average farm 55 years ago had one-third of its soil producing these crops.

One of the significant changes during the past half century is the decrease in "other improved land" in farms. This class includes land in orchards, vineyards, home and truck gardens, improved land in pasture, and all other improved land not growing the principal field crop—corn, wheat, oats, barley, rye, buckwheat, potatoes, tobacco and tame hay. The amount of such land in the average farm has decreased from 30.3 acres in 1870 to 15.3 acres in 1925. This decrease accounts for three-fourths of the reduced acreage in farms during the period.

Unimproved land in the average farm has decreased 6.4 acres during the period, but, because of the decrease in total acreage, the percentage of unimproved land has increased slightly.

Holstein Friesian Modify Testing Rules

Two important changes in the Herd Test rules and A. R. testing were adopted by the Board of Directors at their meeting at St. Louis in October. These changes were made after a study of data presented by Superintendent H. W. Norton, Jr.

In the Herd Test, effective January 1, 1929, records may be computed on the basis of six bi-monthly one-day test periods, preceded by a preliminary dry milking and with the requirement of daily milk weights eliminated.

In long-time semi-official testing the bi-monthly plan may also be used, effective January 1, 1929, but the daily milk weights will continue to be reported.

Long-Time Tests Increase 24%
Long-time tests, since April 1, have increased by 573 in number of cows or 24%. During the same period, 7-day work shows a decrease of 21%. A total of 103 new breeders have begun testing, since January 1, 1929, of which 63 have never tested before and the remaining 40 have resumed testing after a lapse of years.

In the Herd Improvement Test, 245 herds have completed a year's work. Of these, 201 herds with 4000 cows have officially closed with an average of 10,746 pounds of milk, 362.3 pounds fat. There are 203 herds now on Herd Improvement Test and they are located in 32 states. Up to October 1, a total of 778 certificates have been voluntarily cancelled by owners of animals being tested.

Report of the Field and Test Department Inter-State Milk Producers' Association

The following statistics show the average operations of all the Inter-State Milk Producers' Association field men in connection with testing, weighing and general membership work, for the month of November, 1929.

No. Tests Made.....	7585
No. Plants Investigated.....	29
No. Membership Calls.....	133
No. Calls on Members.....	318
No. New Members Signed.....	49
No. Cows Signed.....	348
No. Transfers Made.....	25
No. Meetings Attended.....	85
No. Attending Meetings.....	3006

Lights Increase Feeding

Artificial lighting of layers is beneficial only as a means of bringing about greater feed consumption. With artificial lighting the amount of grain should be increased two to four pounds per 100 birds daily.

THE UNADILLA is the most practical silo

It represents the highest development in wood staves silos. Cures and keeps silage perfectly. Provides greatest safety and convenience in use. Gives owners largest return on their money.

Send for free catalog and ask about discounts for cash and early orders. Time payments if wanted. Also makers of tubs, tanks, vats.
UNADILLA SILO CO.
Box D, Unadilla, N. Y.

If you do not have electric power, install this w-built, correctly designed cabinet for use with ice and water. Then add special cooling coil and electric refrigerating unit later.

Cooling Milk with Kilowatts

ESCO quickest and most efficient method known — the insulated, air-tight cabinet filled with ice cold water, cooled by coils extending completely around the inside. Automatic, efficient, economical, simple. Sturdy battleship construction. Used with all leading refrigerating units.

"The most valuable piece of equipment added to our dairy in recent years," — says a great State University after installing and using ESCO.

If you want low bacteria count, easy and sanitary handling and top prices, cool your milk quickly and keep it below 50° in an ESCO Dairy Cabinet. Uses the ESCO CABINET COMPANY, West Chester, Penna.

Sectional View showing ESCO Cooling Coil

Ask your Power Company, Electric Refrigeration dealer, or write direct to us.

FOR SALE — HOLSTEINS

(PURE BREDS) By (GRADES)

BRADFORD COUNTY CO-OPERATIVE HOLSTEIN FRIESIAN ASSOCIATION

Through this county association, there is now available desirable fresh cows and springers, pure breeds and grades, also young stock, both sexes. Transportation in county and assistance in purchase and shipment furnished if desired. For complete details apply to J. G. KERRICK, Sales Manager TOWANDA, PA.

The Robert Morris

17th and ARCH STREETS
Rooms all outside and with bath. All beds equipped with box springs and Nachman inner hair spring mattresses.

RADIO IN EVERY ROOM
Single rooms... \$3.00 \$3.50 \$4.00
Double rooms... 4.50 5.00 6.00
LUNCHEON .60 and 75
DINNER \$1.00, \$1.15, \$1.50



100 Real Dairy Cows 100

For sale at all times. Tuberculin tested Holsteins, Guernseys and Jerseys. Best Milk Producers. Carload lots a specialty. Priced to sell.

See or Write:
JACOB ZLOTKIN
Phone 330 FREEHOLD, N. J.

Leaves milking machines spotless

VACUUM milking machines can be kept free from dried-on milk and stick spots by cleaning them frequently with Oakite. The rapid action of Oakite loosens casein and butter fats, so that little or no scrubbing is necessary. Then a rinse leaves apparatus spotlessly clean, free from every trace of dirt, film and stickiness.

Our nearest Service Man will gladly explain Oakite cleaning economies. A postal to us will bring him.

Oakite Service Men, cleaning specialists are located in the leading industrial centers of U. S. and Canada

Manufactured only by **OAKITE PRODUCTS, INC.**
34 F. Thames St., NEW YORK, N. Y.

OAKITE
Industrial Cleaning Materials and Methods



THE use and popularity of De Laval Milkers now encircle the globe. In every dairy country of the world De Laval Milkers are establishing new standards of milking. More than 1,500,000 cows the world over are being milked with De Laval Milkers twice, and in many cases three times a day, better, faster and cleaner than they were ever milked before.

In the De Laval Magnetic Milker the use of magnetic force in creating and controlling pulsations has resulted in a milking action that is uniform and regular to a split second, simple installation, the easiest operation conceivable and reduced power requirements. Magnetic force, through its efficient application in the De Laval Magnetic Milker, has established new high standards of milking and greatly added to the pleasure and profit of machine milking. It has eliminated drudgery, expense, and needless loss of time and labor for thousands of dairymen everywhere.

The owners of 1,500,000 cows milked with De Laval Milkers will tell you that the De Laval is the world's best milker.

—And Many of These Cows Are Owned By Dairymen Who Live Close to You

ONE of these dairymen is Mr. D. French Slaughter Culpeper, Va., who writes: "I wish to say that I am well pleased with the De Laval Magnetic Milker. It certainly does a fine job of milking and that the cows like its action is evidenced by their production in milk. I have no trouble keeping it clean, especially with the De Laval Pressure System. My milk goes to the Washington, D. C., market. The Alpha Dairy Power Plant is a highly satisfactory source of power."

"My father before me knew and appreciated the real value of De Laval equipment and it is quite natural that I should feel the same way. I feel that the De Laval Magnetic Milker is distinctly in a class by itself."



THE DE LAVAL SEPARATOR COMPANY
New York, N. Y., 165 Broadway
Chicago, Ill., 600 Jackson Blvd.
San Francisco, Calif., 61 Beale St.

GENTLEMEN: I would like to try the De Laval Magnetic Milker in my own barn, without putting myself under any obligation whatsoever.

My name is
Address
No. of cows ☐ Check here if you wish literature only.

Send the Coupon for
Full Information—or
Free Trial in Your
Own Barn. - - -

Milk Producers Review

ISSUED MONTHLY IN THE INTEREST OF THE DAIRY

Vol. X

West Chester, Pa., and Philadelphia, Pa., February, 1930

No. 10

Directors Hold Bi-Monthly Meeting in Harrisburg

The regular bi-monthly meeting of the Board of Directors of the Inter-State Milk Producers' Association was held, as in the past three years, during the Pennsylvania



I. RALPH ZOLLERS
Secretary, Inter-State Milk Producers' Association

Mr. Zollers was born on a farm in Montgomery County, Pennsylvania, where practically all of his life has been spent. He attended Perkiomen Seminary, and later engaged in farming with his father. During this time he taught school in the winter months. In 1922 he became identified with the Field and Test Department of the Inter-State Milk Producers' Association, of which department he became assistant director. Later he was elected Assistant Secretary of the Inter-State Milk Producers' Association and in January, 1930, was elected Secretary, succeeding Robert W. Ballerston. Mr. Zollers has been active in Grange work, having been Master of the Montgomery County Pomona Grange and also of the Subordinate Grange.

Farm Products Show at Harrisburg. The meeting was held on January 21st, at the Penn Harris Hotel.

The officers and directors attending the meeting included: H. D. Allebach, Presi-



AUGUST A. MILLER
Assistant Secretary, Inter-State Milk Producers' Association
(Continued on page 14)

Use More Butter

And We Mean Butter

Stocks of Butter in cold storage aggregate 38,000,000 pounds over that of a year ago.

THIS SURPLUS MUST BE CONSUMED

Farmers Do Your Part

USE MORE BUTTER YOURSELF

And help consume this enormous surplus. It doesn't mean much per farm if everyone does his share. An **EXTRA** pound or two per month will help greatly in decreasing the surplus, and beside that, it will go a long way toward removing the menace overhanging the market for your fluid milk.

START RIGHT IN

BUY BUTTER, USE BUTTER, TELL YOUR FRIENDS AND NEIGHBORS TO HELP IN THIS CAUSE.

Let Us All Co-operate in Removing the Menace to Your Milk Market

Pennsylvania Farm Products Show Attendance Breaks Previous Records

All former records of attendance for the fourteenth annual Pennsylvania Farm Products Show, which was held in Harrisburg, Pennsylvania, January 21st to 24th, inclusive, were broken this year, in spite of the fact that the new housing facilities now under construction were not yet ready for occupancy.

It was estimated that 170,000 persons passed through the doors of the four buildings being temporarily used for exhibits, while the numerous agricultural meetings held during the week of the show were attended by representatives not only from all parts of Pennsylvania but other states as well.

The Pennsylvania Farm Products Show is under the direction of the State Farm Products Show Commission composed of the following members:—Hon. John S. Fisher, Governor of the Commonwealth; Hon. C. G. Jordan, Secretary of Agriculture; R. C. Bressler, Deputy Secretary of Agriculture; R. L. Watts, Dean, Agriculture Department, Pennsylvania State College; M. S. McDowell, Extension Department, Pennsylvania State College; H. C. Fetterolf, Pennsylvania Department of Education; H. D. Allebach, President, Inter-State Milk Producers' Association; Miles Horst, Secretary, Pennsylvania Potato Growers' Association; and John H. Light, Secretary, Pennsylvania State Grange.

The various buildings which were used for this year's show purposes included the following:—(1) Harrisburg Automobile Company, which houses the dairy cattle and dairy products, educational exhibits, home economic displays, farm equipment, and vocational demonstration contests; (2) Studebaker Building, which housed the potatoes, vegetables, fruit, machinery and supplies; (3) Rhoads Building, which housed the livestock show; and (4) Vance Building, which housed the poultry show, including chickens, turkeys, etc. It is expected that the new Farm Products Show Building which is being erected at a cost of approximately \$1,340,000, and is to cover eleven acres, will be completed and be ready for the 1931 show.

Opening of Show

The formal opening of the Farm Products Show took place on Tuesday evening, January 21st, with a joint meeting of all associations, held in the Chestnut Street Auditorium, which was crowded to capacity. Dr. C. G. Jordan, Chairman, introduced various members of the Farm Products Show Commission; former Secretary of Agriculture, Frank P. Willis, various state officials, vocational teachers and leaders. Seated on the platform also were the following: H. A. Snyder, Montoursville, Dairy King; Henry High, Bucks County, Potato King; G. C. Birdsall, Susquehanna County, Swine King; Mrs. Florence Johnson, Somerset County, Turkey Queen. Mrs. J. R. Cassel, Lancaster County, represented the Society of Farm Women of Pennsylvania.

The Vocational Quartet, Boiling Springs supplied vocal music during the session.

Dean Watts of Pennsylvania State College in a brief address referred to the splendid growth of vocational schools,

(Continued on page 14)

Federal Farm Board Sounds Warning

The following statement was issued January 13, 1930, by the Federal Farm Board:

"A warning against overproduction of dairy products and an injunction to farmers to use their own butter and other dairy products in their homes are contained in resolutions adopted by the Dairy Advisory Committee and approved by the Federal Farm Board.

"These resolutions and another cautioning dairy farmers to beware of promotional schemes for construction of physical facilities were submitted to the Board by the committee following meetings held in Washington, January 7, and 8 on call of the Board.

"The committee in the first of its resolutions asserted that there is a temporary overproduction of butter and other dairy products in the United States. Continuing, it said:

"We advise farmers generally to consider carefully production methods from an economical and profitable standpoint. With the above in mind we recommend the sale for slaughter of all lowproducing and unprofitable cows from the herd."

"The resolution urging farmers to use their own dairy products follows:

"Whereas, the price of butter is now below the cost of production, and

"Whereas, the farmers of the country are themselves partly responsible for this condition because of their failure to use their own butter and dairy products in their homes and could materially improve market conditions by using more butter and dairy products.

"Resolved, that we urge upon the farmers of the nation to help improve the price of dairy products by using more butter and dairy products in every way that such products can be utilized as a food product."

"Following is the resolution warning dairy farmers against promoters of schemes to construct facilities for handling dairy products:

"Whereas, the experience of many past years discloses that producers of farm products have much too often been victimized by schemes to construct and equip packing plants, creameries and various kinds of factories for processing their products under conditions which did not reflect sound business judgment and there is imminent danger that unscrupulous persons may seek to take advantage of the present sweeping co-operative marketing movement by similar unsound schemes.

Secretary Reed Advises Culling of Dairy Herds

With the present butter storage situation and the recent decline in price of butter and other dairy products, now is a good time for dairymen to eliminate from their herds the low producers, in the opinion of O. E. Reed, chief of the Bureau of Dairy Industry, U. S. Department of Agriculture. In an address given before the Nebraska State Dairymen's Association at Lincoln, January 8, Mr. Reed said that from 5 to 10 per cent of the lowest producers could be culled from herds without any danger of causing a shortage of dairy products. In this connection, he said that while three months ago cows producing from 200 to 250 pounds of butterfat a year may have made a profit, today it takes a better cow.

"It has been estimated," Mr. Reed continued, "that one-third of our dairy cows are not returning a profit to their owners. The points at which profitable production per cow begins and ends depend primarily on the kind and cost of feed, price of product, cost of labor and

"Resolved, That the farmers of the nation be cautioned to scrutinize and examine most closely all plans for promotion of building facilities, for handling dairy and other farm products, which are either originated or furthered by those whose chief, if not only interest is to make a profit out of the promotion of the enterprise; also, that co-operative organizations, individual farmers and local commercial and financial interests everywhere, be advised not to enter upon facility building programs until a most careful survey has been made by disinterested advisors from the state governmental agencies and especially not until the Division of Co-operative Marketing which is now with the Federal Farm Board has been consulted and its recommendations have been most deliberately weighed."

"The committee reported to the Board that it had unanimously endorsed the policy of the Federal Farm Board in making loans to local co-operative associations only through regional or central co-operative marketing or bargaining associations, in order that efficient co-operative marketing could be more effectively developed. It is the belief of the committee that it is desirable that the Federal Farm Board use its services and influence to eliminate as far as possible competition between co-operative marketing associations and hope that this will be the aim and purpose in all the Examining Sections of the Federal Farm Board when considering applications for loans."

"The Dairy Advisory Committee, on invitation of the Federal Farm Board, was selected by co-operative associations representative of the producers of dairy products and is composed of the following members:

Harry Hartke, Chairman, Co-operative Pure Milk Assn., Cincinnati, Ohio.

John Brandt, Secretary, Land o' Lakes Creameries, Inc., Minneapolis, Minn.

C. E. Hough, Connecticut Milk Producers' Association, Hartford, Connecticut.

Emerson Els, Madison, Wis., National Cheese Producers' Federation.

A. G. Ziebell, Marysville, Wash., United Dairy Association of Washington.

P. L. Betts, Chicago Equity Union Exchange, Chicago, Illinois.

George W. Slocum, Milton, Pa., New York Dairymen's League. (Due to illness Mr. Slocum was unable to attend the sessions held by the committee.)"

Use an Extra "Pat" of Butter Says M. D. Munn

The present surplus in all dairy products presents an economic condition of tremendous importance to agriculture and unless remedied will have disastrous results upon all efforts to stabilize and improve agricultural conditions.

Every person whether living in the city or country is deeply interested in this condition and the possible effect it may have upon the future food supply of our country.

Every rural community is interested because its food supply and its prosperity as well depend even more largely upon the success of the farmer. The farmer receives a greater portion of the consumer's food dollar from his dairy products than anything else he produces. This return comes to him like a pay check, daily or monthly in accordance with the way in which he markets his products, but what is more important, it comes to him regularly for his immediate livelihood and enables him to carry on his other agricultural operations. His grains he has to plant in the Spring and cannot market them until late in the Fall or the following winter. His beef animals must be grown before they can be marketed, but his milk or cream check comes to him regularly in the meantime and during the winter months when all his other agricultural activities are dormant his cows continue to return to him a steady and regular income. For this reason any impairment of this source of his income more directly affects him than any other. While the consumption

(Continued on page 15)

New Jersey Holds Farm Products Show

The fifteenth annual State Agricultural Convention, Farm Products and Equipment Show and meetings of 14 state agricultural organizations were held in conjunction during the week of January 13th, in Trenton, New Jersey.

"Agricultural Week," was formally opened at the Armory by Mayor F. W. Donnelly. Aside from the remarkable display of labor saving farm and household machinery and devices, there was on exhibit a great variety of apples, potatoes and other farm products.

Among the agricultural organizations holding meetings at this time were the following: New Jersey State Potato Association; New Jersey Baby Chick Association; New Jersey Alfalfa Association; New Jersey Guernsey Breeders' Association; Holstein Friesian Co-operative Association; New Jersey Beekeeper's Association and the New Jersey State Horticultural Society; New Jersey Guernsey Breeders' Association; New Jersey Dairymen's Roadside Market Association; New Jersey Federation of County Boards of Agriculture and a Vocational Teacher's Conference.

Agricultural Convention

Almost a hundred delegates representing various farm organizations attended the agricultural Convention, whose program included as speakers, Governor Larson and United States Secretary of Agriculture Arthur M. Hyde.

The president's annual address was delivered by Elmer H. Wene of Vineland, President of the New Jersey State Board of Agriculture. Addresses were also made by Dr. John R. Mohler, of Washington, D. C., Chief of the Bureau of Animal Industry, United States Department of Agriculture on the subject, "Economic Aspects of Animal Disease Control;" and William B. Duryee, Secretary of Agriculture for New Jersey who spoke on "Meeting the Problems Ahead of Us."

Norman Fogg, of Salem, N. J., and Elmer H. Wene, of Vineland, N. J., were

elected to the State Board of Agriculture to serve for four years.

The New Jersey Federation of County Boards of Agriculture in annual meeting elected Wm. C. Spargo, of Dover, president, and re-elected all other officers.

A number of resolutions were passed by the Federation. A request in one was made that state and national campaigns showing the nutritive values of butter and other dairy products be undertaken by county home demonstration agents. One favored the retention of the present tariff on sugar importations. Another resolution prohibiting the employment of any person under 18 years of age on farms was offered.

Federation Banquet

The annual Federation Banquet was held at Hotel Hildebrecht. The presentation of Master Farmer awards for the state of New Jersey was one of the features of the dinner. (For further details of the Master Farmer Awards see page 6 of this issue of the Review).

The principal address of the evening was given by Mrs. Chas. W. Sewell, Director, Home and Community Department of the American Farm Bureau Federation, Chicago.

The Dairymen's Banquet was held at Hotel Hildebrecht, with C. E. Hough, secretary of the Connecticut Milk Producers' Association, as the speaker.

Farm Products Exhibits

More than 30,000 square feet of the spacious drill-shed was devoted to the Farm Products and Equipment Show. This included competitive apple, corn, potato and sweet potato exhibits for which \$1,000 in prizes and trophies were awarded as donated by Governor Larson and the Reading Railroad.

Twenty-five poultry breeders in the state offered displays to compete for the Trenton Times cup.

There were displays by forty of the country's leading implement dealers of their latest equipment features.

Use an Extra "Pat" of Butter Says M. D. Munn

The present surplus in all dairy products presents an economic condition of tremendous importance to agriculture and unless remedied will have disastrous results upon all efforts to stabilize and improve agricultural conditions.

Every person whether living in the city or country is deeply interested in this condition and the possible effect it may have upon the future food supply of our country.

Every rural community is interested because its food supply and its prosperity as well depend even more largely upon the success of the farmer. The farmer receives a greater portion of the consumer's food dollar from his dairy products than anything else he produces. This return comes to him like a pay check, daily or monthly in accordance with the way in which he markets his products, but what is more important, it comes to him regularly for his immediate livelihood and enables him to carry on his other agricultural operations. His grains he has to plant in the Spring and cannot market them until late in the Fall or the following winter. His beef animals must be grown before they can be marketed, but his milk or cream check comes to him regularly in the meantime and during the winter months when all his other agricultural activities are dormant his cows continue to return to him a steady and regular income. For this reason any impairment of this source of his income more directly affects him than any other. While the consumption

(Continued on page 15)

INTER-STATE MILK PRODUCERS' ASSOCIATION

RECEIVING STATION PRICES in effect February 1, 1930.

SUBJECT TO CHANGE whenever warranted by market conditions.

These quotations are based on 3% butterfat milk with a differential of 4 cents for each tenth point and 2 cents for each half tenth point up or down, and are for all railroad points. (Inland stations carry differentials subject to local arrangements.)

This price list is issued with the understanding that it is not to producers and that all buyers using it as a basis of payment to producers shall in addition thereto make the following contributions and payments.

(1) To the Philadelphia Inter-State Dairy Council 2¢ per hundred pounds (46½ quarts) of all milk bought from any producer at price listed hereon.

(2) To the Inter State Milk Producers' Association 2¢ per hundred pounds (46½ quarts) of all milk bought from members of said association.

(3) To the Philadelphia Inter-State Dairy Council 2¢ per hundred pounds (46½ quarts) of all milk bought from other producers at price listed hereon.

The funds so derived are to be used by the recipients for improving standards of quality in production and distribution of milk in the Philadelphia Milk Shed; for improvement and stabilization of markets and for an educational campaign advertising the food value of dairy products.

Basic price February first. January surplus price.

Miles	Freight rate per 100#	Basic Quantity		Class 1	
		Price	Test	Per 100#	
1 to 10	inc.	2.64	3.0	\$1.34	
11 to 20	"	2.83	3.05	1.35	
21 to 30	"	3.03	3.1	1.36	
31 to 40	"	3.13	3.15	1.40	
41 to 50	"	3.33	3.2	1.42	
51 to 60	"	3.43	3.25	1.44	
61 to 70	"	3.44	3.3	1.46	
71 to 80	"	3.74	3.35	1.48	
81 to 90	"	3.89	3.4	1.50	
91 to 100	"	3.99	3.45	1.52	
101 to 110	"	4.14	3.5	1.54	
111 to 120	"	4.24	3.55	1.56	
121 to 130	"	4.34	3.6	1.56	
131 to 140	"	4.50	3.65	1.60	
141 to 150	"	4.59	3.7	1.62	
151 to 160	"	4.75	3.75	1.64	
161 to 170	"	4.80	3.8	1.66	
171 to 180	"	4.90	3.85	1.66	
181 to 190	"	5.05	3.9	1.70	
191 to 200	"	5.10	3.95	1.72	
201 to 210	"	5.27	4.	1.74	
211 to 220	"	5.35	4.05	1.76	
221 to 230	"	5.40	4.1	1.76	
231 to 240	"	5.60	4.15	1.80	
241 to 250	"	5.66	4.2	1.82	
251 to 260	"	5.66	4.25	1.84	
261 to 270	"	5.76	4.3	1.86	
271 to 280	"	5.81	4.35	1.86	
281 to 290	"	5.93	4.4	1.90	
291 to 300	"	6.00	4.45	1.92	
			4.5	1.94	
			4.55	1.96	
			4.6	1.96	
			4.65	2.00	
			4.7	2.02	
			4.75	2.04	
			4.8	2.06	
			4.85	2.06	
			4.9	2.10	
			4.95	2.12	
			5.	2.14	

By order of the Board of Directors

Tenth Floor, Flint Bldg.,
Philadelphia, Pa.

Issued January 28th, 1930.

President.

Secretary.

Pennsylvania Dairymen's Association Holds Fifth Annual Meeting at Harrisburg

The fifth annual meeting of the Pennsylvania Dairymen's Association was held on January 22, 1930, in Harrisburg, Pennsylvania, during the Farm Products Show, with increased numbers in attendance for all of the sessions and more than four hundred present for the banquet.

The various meetings were held in Fahnstock Hall, while the Masonic Temple was crowded beyond capacity for the banquet which closed the annual meeting.

The formal opening of the first session was made by Robert F. Brinton, president, who referred to the activities of the association during the past year in regard to dairy and manufacturing relations, tuberculosis test, abortion, consumer education and legislation.

Eight hundred and twenty-two farmers in dairy herd improvement association work were reported as having received awards during the year for their accomplishments. The steady growth in association memberships had been continued.

President's Address

"The total value of milk and milk products sold from Pennsylvania farms exceeds \$100,000,000 per year," said President Brinton. "Among 241 different products manufactured in this state, only 14 exceed the value of the output of the dairy cow."

The progressiveness of Pennsylvania is shown in the fact that 75% of the state's 1,340,000 dairy cattle are now under supervision for tuberculosis eradication was commended. Blood testing for contagious abortion was reported as being carried on in 3118 herds as against 1902 herds last year. Of the present number, 270 have been awarded abortion-free certificates.

Mr. Brinton referred briefly to the four following legislative articles in which the association had been particularly interested during the last session of Legislature: The Sanitary Milk Code, a new law providing for the incorporation of co-operative associations having capital stock; an amendment to the co-operative act of 1919; and a new law providing for the payment of occupation taxes in place of a tax on horses and cattle.

In alluding to some of the problems which face Pennsylvania dairymen in the immediate future the association president sounded a warning note against over-production. "In our state and throughout the country as a whole, dairy farmers are better organized than any other class of agricultural producers. Due to this fact they have during the past ten years received more net return than have the producers of grains and other farm crops. Many more farmers have therefore gone into dairying, until we are right now facing an over-production of dairy products. There is more butter in storage this winter than there has been for many years and the price has reached the lowest level since 1916."

"Electric Refrigeration in the Cooling of Milk," was the subject of an address by R. U. Blasingame, Pennsylvania State College, who outlined the preliminary findings of research on that subject begun a year and a half ago in twenty-eight plants.

The New Milk Code was discussed by R. E. Irwin, Chief, Milk Control, Pennsylvania State Department of Health, who expressed the belief that this first state law in such direction would prove a definite forward step. The milk code usurped no authority from municipalities but functioned where no local rulings were provided.

The new milk code, said Mr. Irwin, will help to bring about fair competition.

Business Session

The afternoon session was largely devoted to a business session. The minutes of the previous meeting were read by R. H. Olmstead, Secretary, and a financial statement of the association was also presented.

A committee on nominations composed of Thomas P. Harney, I. V. Otto and W. S. Wise was appointed by the president, and made the following suggestions for nomination of officers: President, R. F. Brinton; first vice president, Dr. L. M. Thompson; second vice president, M. T. Phillips; third vice president, P. S. Richer; and secretary-treasurer, R. H. Olmstead. There being no nominations from the floor these officers were unanimously elected.

Dutcher and Harmon Speakers

Professor R. Adams Dutcher, head of the Department of Agricultural and Biological Chemistry, Pennsylvania State College, made a most interesting address on "Certain Aspects of the Milk Production Problem." Dr. Dutcher stated that milk and other dairy products such as cream and ice cream are very important in helping people to resist infection of the sinuses and respiratory diseases.

"The Truth About Contagious Abortion and Its Relation to Undulant Fever," was the subject of an outstanding address by E. M. Harmon, Associate Editor of Successful Farming, Des Moines, Iowa.

"The recent sensational publicity on undulant fever was due to the fact that it was thought to be a new disease. As a matter of fact, no one knows how old it really is. During seven and a half years there have been only 1,296 cases reported in the United States, and most of these have been cured by this time. There is every reason to believe that there are other modes of transmission of just as great or greater importance as through drinking the milk of infected cows."

"The point to remember," said Mr. Harmon, "is that pasteurization kills the organism. Pasteurized milk is perfectly safe. If they have a pasteurized milk supply the danger is automatically eliminated."

Dairymen's Banquet

The annual banquet of the Pennsylvania Dairymen's Association, was the largest and most successful ever given by the association. Robert F. Brinton, president, acted as toastmaster for the occasion.

Dr. C. G. Jordan, Secretary of Agriculture, made a few opening remarks in which his message to the assembled dairymen was "Clean Up Your Herds," pledging the support of state officials.

W. F. Schilling, member of the Federal Farm Board, spoke on the modern necessity of co-operation. "The farmer who eats a butter substitute ought to be ashamed to look a cow in the face," said Mr. Schilling, in urging that the consumption of dairy products be increased on the farms themselves.

"There are four great needs of the dairy farmer today," said Fred H. Sexauer, president, Dairymen's League Co-operative Association, New York City, in one of the principal addresses of the evening. These needs were defined as follows:—a strong voice in the marketing program; well-controlled promotional work; co-ordinated information on all phases of production and consumption; and finally, under our present system of government,

effective tariffs, which will be effective on the agricultural industry. These things are to be obtained by the dairy farmers through their own organizations, said Mr. Sexauer.

Cow Testing Ribbon Awards

The banquet was the occasion of the announcement that 822 farmers in dairy herd improvement work had received awards during the past year. Purple ribbons were awarded to 79 farmers whose herds averaged over 400 pounds of butterfat; blue ribbons to 191 farmers with herds producing between 350-400 pounds butterfat; and red ribbons to 542 farmers whose herds produced between 300-350 pounds butterfat. Last year 725 dairymen received these awards while five years ago only 260 were thus honored.

Milk Awards

There were 170 samples of milk entered in the State Farm Products Show Contest. Announcements of winners in the various classes were made by D. H. Bailey, Dairy Extension Department, Pennsylvania State College. There was an unusually high average among this year's samples, 118 of the total entries having a grading of 96 or over.

The Philadelphia Inter-State Dairy Council award of a silver pitcher for the highest quality milk under Dairy Council inspection was won by J. S. Blank, Leola, Penna. A clipping machine offered by the Dairymen's League for first place in raw market milk from tuberculin-free cows was awarded to Robert W. Eno, Honesdale, Penna.

MILK AWARDS—1930

Raw Market Milk From T.B. Free Cows

AWARD	NAME	ADDRESS	COUNTY
1	Robert W. Eno	Honesdale, Pa.	Wayne
2	N. S. Martin	Belle, Vernon	Lafayette
3	H. J. Gregory	St. Mary's	Elk
4	J. F. Blank	Leola	Lancaster
5	Geo. Mattern	Holidaysburg	Blair
6	L. F. Nickolas	Walnutport	Northampton
7	H. B. Wilhelm	Willow Hill	Franklin
8	J. A. McSparran & Sons	Furness, Pa.	Lancaster
9	W. P. Moore & Sons	Chatham	Chester
10	Phillip L. Long	New Stanton	Westmoreland

Raw Market Milk Award

AWARD	NAME	ADDRESS	COUNTY
1	Preston C. Smith	Martinsburg	Blair
2	Daniel S. Stoltzfus	Lancaster, R. D. 5	Lancaster
3	Horace Woodward	Mendenhall	Chester

Certified Milk

AWARD	NAME	ADDRESS	COUNTY
1	Lenkerbrook Dairy	Harrisburg	Dauphin
2	Pennhurst Farm	Narberth	Montgomery
3	Delchester Farms	West Chester, R. D.	Delaware
4	Dr. F. Taylor	Pulaski	Lawrence

Pasteurized Milk

AWARD	NAME	ADDRESS	COUNTY
1	J. E. Harshbarger	Altoona	Blair
2	C. Stanley Hess	Lancaster	Lancaster
3	Supplee Wills Jones	Philadelphia	Philadelphia
4	Greenville Dairy Co.	Greenville	Mercer
5	J. W. Ferral	Williamsburg	Blair
6	Moore Bros.	Meadville	Cranford

BUTTER AWARDS

Farm Butter

AWARD	NAME	ADDRESS	COUNTY
1	Earl A. Jackson	Akersville	Fulton
2	Mrs. John E. May	Dover, R. D. 4	York
3	Mrs. J. E. Vestor	Scenery Hill, R. D. 1	Washington

Creamery Butter

AWARD	NAME	ADDRESS	COUNTY
1	Fairmont Creamery	Pittsburgh	Allegheny
2	Kane Dairy	Kane	McKeen
3	Hershey Creamery	Harrisburg	Dauphin

New Jersey State Dairy Committee Does Much Valuable Work

Adopts Uniform Milk Grades and Essentials For Clean Milk Production

Much valuable work has been accomplished by the State Dairy Advisory Committee since its organization on July 1. The Committee has been of great assistance in shaping the milk marketing policy of the Department and has studied and ratified proposed grades of milk for New Jersey as well as proposed essentials for clean milk production to comply with these standard grades.

They recommend the following milk grades: Certified, Natural (Raw) Milk, Grade "A." Pasteurized, Grade "B." Pasteurized. The Committee believes that the establishment of such grades would help to stabilize the dairy industry in New Jersey. If grades with certain definite requirements are created, they feel the dairymen will have an ob-

jective and can regulate their dairies so as to produce a grade of milk that will be recognized not only by one distributor but by all the distributors receiving New Jersey milk.

It is planned to send copies of these grades to the Federation of Women's Clubs, State Chamber of Commerce, Association of Boards of Health Officers, etc., to get the benefit of criticism and suggestions of these groups. Representatives of these organizations will be invited to discuss the proposed grades at the January meeting of the Dairy Advisory Committee.

A special dairy exhibit is planned for Agricultural Week and this may include a demonstration of how milk is handled from cow to consumer, study of the steps of clean milk production, charts showing the divergencies of the codes for marketing milk in the different cities in the state presented in such a way as to drive home these inconsistencies to the consumer, and a competitive milk display with sample bottles and score card showing basis of good milk, to educate the public to know good milk when they see it.

INTER-STATE MILK PRODUCERS' ASSOCIATION
PHILADELPHIA PRICES in effect February 1st, 1930.
SUBJECT TO CHANGE, however, by market conditions.
These quotations are based on 3% butterfat and a differential of 4 cents for each tenth point and 2 cents for each half tenth point up or down.

This price list is issued with the understanding that it is net to producers and that all buyers using it as a basis of payment to producers shall in addition thereto make the following contributions and payments.

(1) To the Philadelphia Inter-State Dairy Council 2¢ per hundred pounds (46½ quarts) of all milk bought from any producer at price listed hereon.

(2) To the Inter-State Milk Producers' Association 2¢ per hundred pounds (46½ quarts) of all milk bought from members of said association.

(3) To the Philadelphia Inter-State Dairy Council 2¢ per hundred pounds (46½ quarts) of all milk bought from other producers at price listed hereon.

The funds so derived are to be used by the recipients for improving standards of quality in production and distribution of milk in the Philadelphia Milk Shed; for improvement and stabilization of markets and for an educational campaign advertising the food value of dairy products.

Basic price February 1st.		January surplus price	
Test per cent.	Quantity per 100#	Price : per qt. : Per 100#	Class 1 Per qt.
3.	3.29	7.1 : 1.92	4.1
3.05	3.31	7.1 : 1.94	4.15
3.1	3.33	7.15 : 1.96	4.2
3.15	3.35	7.2 : 1.98	4.25
3.2	3.37	7.25 : 2.00	4.3
3.25	3.39	7.3 : 2.02	4.35
3.3	3.41	7.35 : 2.04	4.4
3.35	3.43	7.4 : 2.06	4.4
3.4	3.45	7.4 : 2.08	4.45
3.45	3.47	7.45 : 2.10	4.5
3.5	3.49	7.5 : 2.12	4.55
3.55	3.51	7.55 : 2.14	4.6
3.6	3.53	7.6 : 2.16	4.65
3.65	3.55	7.65 : 2.18	4.7
3.7	3.57	7.65 : 2.20	4.75
3.75	3.59	7.7 : 2.22	4.8
3.8	3.61	7.75 : 2.24	4.8
3.85	3.63	7.8 : 2.26	4.85
3.9	3.65	7.85 : 2.28	4.9
3.95	3.67	7.9 : 2.30	4.95
4.	3.69	7.95 : 2.32	5.
4.05	3.71	8. : 2.34	5.05
4.1	3.73	8. : 2.36	5.1
4.15	3.75	8.05 : 2.38	5.1
4.2	3.77	8.1 : 2.40	5.15
4.25	3.79	8.15 : 2.42	5.2
4.3	3.81	8.2 : 2.44	5.25
4.35	3.83	8.25 : 2.46	5.3
4.4	3.85	8.3 : 2.48	5.35
4.45	3.87	8.3 : 2.50	5.4
4.5	3.89	8.35 : 2.52	5.4
4.55	3.91	8.4 : 2.54	5.45
4.6	3.93	8.45 : 2.56	5.5
4.65	3.95	8.5 : 2.58	5.55
4.7	3.97	8.55 : 2.60	5.6
4.75	3.99	8.6 : 2.62	5.6
4.8	4.01	8.65 : 2.64	5.7
4.85	4.03	8.65 : 2.66	5.7
4.9	4.05	8.7 : 2.68	5.75
4.95	4.07	8.75 : 2.70	5.8
5.	4.09	8.8 : 2.72	5.85

By order of the Board of Directors

Tenth Floor, Flint Bldg., Philadelphia, Pa. President. Secretary.

Issued January 28th, 1930.

INTER-STATE MILK PRODUCERS REVIEW

Official Organ of the
Inter-State Milk Producers' Association, Inc.
August A. Miller, Editor and
Business Manager
Frederick Shugart, Advertising Manager
Published Monthly by the Inter-State Milk
Producers' Association, Inc.

Business Office
Flint Building, 219 N. Broad St., Phila., Pa.
235 E. Gay St., West Chester, Pa.
Editorial and Advertising Office
Flint Building, 219 N. Broad St., Phila., Pa.
Bell Phone, Locust 5391. Locust 5392
Keystone Phone, Race 5344

Printed by Horace F. Temple, Inc.
West Chester, Pa.

Subscription
50 cents a year in advance
Advertising rates on application

"Entered as second-class matter, June 3, 1920,
at the post office at West Chester, Pennsylvania
under the Act of March 3, 1879."



As our producers have been advised in many meetings and by word of mouth, the probabilities were that the Board of Health of the City of Philadelphia, might at any time invoke the necessity that all milk for consumption in Philadelphia be produced from cows which by test were free from tuberculosis, and that the time of grace for such testing might be short, that such a resolution had been adopted and that no milk would be lawfully distributed in Philadelphia after May 1, 1930, unless it comes from cows that had successfully passed the tuberculin test. For those who have not had their cattle tested the time for such action is relatively short and producers shipping milk to this city should take immediate action to have their cattle tested.

We are advised that the regulation will be rigidly enforced.

The two great Farm Products Shows of the East, the Pennsylvania State Farm Products Show and the New Jersey State Farm Products show are now matters of history.

The Pennsylvania Show we hope has passed that stage of unfavorable surrounding and cramped isolated exhibit buildings and will with its next show be housed in a new State Exhibition building in Harrisburg and it's not a moment too soon.

With the importance to the farmers of the two states, these shows have grown to be the most important agricultural events of the year; of equal importance have they become to the industry generally and to the many manufacturers of farm equipment and machinery who annually make displays of their products.

Hundreds of thousands of farmers, not from these two states alone attend the shows and the different commodity and co-operative meetings of the various farm organizations. They are the centres of exchange of ideas and are extremely valuable in the furtherance of the various economical factors and problems of agriculture.

If those who are agriculturally minded have not attended these great events, not only from Pennsylvania and from New Jersey, but from the adjoining states as well, they have missed a big opportunity and they should certainly plan to attend them next year.

And now as to milk production and to prices.

Last month in the MILK PRODUCERS' REVIEW graphically stated on its first page, the actual production conditions in the Philadelphia Milk Shed during No-

vember, with its increased production rate of 5,367,337 lbs. over that of a year ago that seemed to have but little effect. December production went on at a relatively high level and there was little let up in January. This condition apparently existed not only in our own territory but throughout the country. Excess butter production has reached enormous figures and butter prices have dropped and dropped and dropped until it has reached a proportion where the price of butter is entirely out of line with fluid milk prices.

Something had to be done and done at once or our entire local milk market would have slumped to meet the lower price levels. As the excess product appeared to be largely in the volume of surplus milk, it was decided to bring the price of surplus milk sharply in line with the demand and value of such surplus product and it was agreed after conferences with our buyers, that such surplus milk, at least for February and March should be brought strictly in line with actual butter prices, that is, based on the actual average selling price of 92 score solid packed butter, New York City. This eliminates for those months, the 20% premium paid heretofore under the Philadelphia Selling Plan and places the price of such surplus actually on a flat butter price basis. Under this plan the price of basic milk, that is milk for fluid consumption, remains unchanged. Producers should remember that surplus milk must now meet the competition of an over supply of butter and until this is adjusted great care in production should be exercised.

FEBRUARY MILK PRICES

Under agreements with co-operating buyers, arrived at on February 3rd, 1930, the price to be paid for basic milk delivered during that month, will remain unchanged, as follows:

The price of basic milk, 3 per cent butterfat content, delivered at Philadelphia, will subject to market conditions, be \$3.29 per hundred pounds or 7.4 cents per quart.

The price of basic milk delivered at receiving stations in the 51-60 mile zone, 3 per cent butterfat content, will subject to market conditions be \$2.71 per hundred pounds with the usual differentials and variations at other mileage points.

Surplus milk shipped during February will be paid for by co-operating buyers, on the average price of 92 score butter, solid packed, New York City.

January Butter Prices

92 Score, Solid Pack	Philadelphia	New York	Chicago
2 39	38	36	
3 38 1/2	37 1/2	35	
4 38 1/2	37 1/2	35	
5 38	37	35	
6 37 1/2	36 1/2	35	
7 37	36 1/2	35	
8 36 1/2	36 1/2	35	
9 35 1/2	35 1/2	35	
10 36	35	33 1/2	
11 36 1/2	35 1/2	33 1/2	
12 36 1/2	35 1/2	33 1/2	
13 36 1/2	35 1/2	33 1/2	
14 36	35	33 1/2	
15 36	35	33 1/2	
16 36	35	33 1/2	
17 37	36	34 1/2	
18 38	37	35 1/2	
20 39 1/2	38 1/2	36	
21 38	37	36	
22 38 1/2	37 1/2	36 1/2	
23 39	38	36 1/2	
24 39	38	36 1/2	
25 39	38	36	
27 39	38	36 1/2	
28 38 1/2	37 1/2	36 1/2	
29 38 1/2	37 1/2	36 1/2	
30 38 1/2	37 1/2	36 1/2	
31 37	36	36 1/2	

MARKET CONDITIONS

H. D. ALLEBACH

We cannot see much change in market conditions from last month. Our production has possibly been reduced just a little but we do not believe that the consumption has made any marked change because there has been little improvement in the labor situation and from reports available we believe that it is just a little worse. Consumption is not increasing and with the tremendous surplus supply of butter and milk products on the market, it is difficult for us to look very far ahead.

It has been impossible for us to market our surplus milk in competition with Western cream and milk products which have been coming into our market quite extensively, and at prices relatively lower than our own. At a conference held in our office on February 3rd, we agreed with the buyers of our milk that for February and March the surplus price would be the flat average price of 92 score New York butter. In other words, the customary 20 per cent added to the butter price in arriving at the surplus price will be eliminated during these two months. This will make our surplus price very low, but it will be in conformity with the prices applying for butter, cheese, condensed and evaporated milk. Under these circumstances I am pleading with the producers of milk in this territory at this time to endeavor to curtail at least 15 pounds of milk per farm every day until the conditions have become more normal.

I wish to make a further plea to our producers. Be sure that everyone uses true butter instead of a substitute, and would urge that our producers use at least a pound more butter a week than they are using at the present time. Some of you may say that you do not like butter. Others will say you are using all you can. But if we are to clear up the great surplus of 30,000,000 pounds of butter above last year that is now in cold storage and place our market on a more substantial basis, it must of necessity be up to the dairymen to do their part toward a greater consumption of butter. Let the children put it on their bread a little thicker, and use it in cooking and frying. This is good gospel to also preach to your city cousins to do the same.

Every producer should know whether or not he has any boarder cows in his herd, and if he does he should sell them to the butcher at once. The price of fat cattle is still pretty good. It will not pay any producers to keep a boarder cow at the present price of surplus milk and unless we are able to curtail our production and use some of this surplus milk that is on the market it will be impossible for us to hold the present basic price. The whole situation is up to you.

If we watch our production and increase our own consumption we can aid in correcting these conditions.

I might mention also that February 3rd, the Board of Health of Philadelphia passed an ordinance stating that no milk or table cream would be received in the Philadelphia Market after May 1, 1930, which does not come from cows that are free from tuberculosis. This is in line with the policies of the Boards of Health in a number of other large Eastern distribution points.

January Milk Prices

As has been previously announced in

Mr. John Bryan has been transferred from the Chambersburg district to the Trenton, N. J., District, where he will succeed Mr. McNitt—who has resigned to take up a position with a milk manufacturing organization in Kansas.

the Milk Producers Review, co-operating buyers, will, under the provisions of the Philadelphia Selling Plan, make the following basis of payments for milk purchased during the month of January, 1930. All milk will be purchased on the basic and surplus plan.

Grade B market milk, basic quantity average, will be paid for on the basis of \$3.29 per hundred pounds, three per cent butter content, f. o. b. Philadelphia or 7.1 cents per quart.

Grade B market milk, basic quantity butter fat content, delivered at receiving stations in the 51-60 zone, for January delivery, is quoted at \$2.71 per one hundred pounds. The usual butter fat differentials and freight rate variations, applying at other mileage zones in the territory are shown by quotations on Page 5 of this issue of the Milk Producers Review.

The price of "A" milk, under the usual butter fat variation and prices in the different mileage zones in the territory and at "A" stations for January are also quoted on Page 5 of this issue of the Milk Producers' Review.

Surplus Prices

The price of Surplus Milk for January, three per cent butter fat content, f. o. b. Philadelphia is quoted at \$1.92 per one hundred pounds or \$.41 cents per quart.

The price of Surplus Milk of the same butter fat content for January, at all receiving stations, is quoted at \$1.34 per one hundred pounds.

January Butter Market

There has been little fundamental change in the dairy markets. Prices for butter and cheese have worked to even a lower level than in December, and stocks of all the important dairy products remain large for this season of the year. Prices of 92 score butter at New York have averaged lower than at any season since 1916, reaching as low as 34 1/2 cents on January 9th. A gradual upturn followed, reaching 38 cents on January 27th. The January average will probably be the lowest for any year since 1916.

On January 1st, 1930, butter holdings totaled 81,837,000 pounds as compared with 43,793,000 pounds one year ago, and the five year average of 48,580,000 pounds. Condensed and evaporated milk in the hands of manufacturers amounted to 260,795,000 pounds as compared to 176,198,000 on January 1st, 1929, and the average of the past five years of 146,169,000 pounds.

Very large reserve supplies of all dairy products are on hand. Production so far about equals that of last year, with considerably lower prices on all commodities.

There is still another important factor in the situation, and that is consumption. There was a decrease in the consumptive demand for butter and for cheese as compared with a year ago.

At this time it is impossible to measure the consumptive demand for 1930. The general labor situation is not satisfactory, and some betterment in this line must result if normal consumption of dairy products is to be resumed.

The average price of 92 score butter solid packed New York City on which the surplus price of milk for January was computed was 36.97 cents.

Mr. Peter Dutko has been added to the Quality Control staff. Mr. Dutko received his agricultural training in Brno, Czechoslovakia, took his Master of Science work at the Pennsylvania State College, and further pursued his studies at the University of Minnesota.

LATEST MARKET PRICES

The basic prices, quoted below, for January, 1930, represent those to be paid by co-operating buyers for that month.

For all milk in excess of the basic quantity the surplus price quoted below, for the month of January is to be paid.

Surplus milk will be paid under one classification. Class I, represented by the amount of milk in excess of the basic average, which will be paid for by co-operating dealers on the basis of 92 score butter, solid pack, New York City, plus 20 per cent.

PHILADELPHIA SELLING PLAN INTER-STATE MILK PRODUCERS' ASSOCIATION PRICES

This price list is issued with the understanding that it is net to the producers and that all buyers using it as a basis of payment to producers, shall in addition thereto make the following contributions and payments:

(1) To the Philadelphia Inter-State Dairy Council, 2c per 100 pounds (46 1/2 quarts) of all milk purchased from any producer at prices listed herein.

(2) To the Inter-State Milk Producers' Association, 2c per 100 pounds (46 1/2 quarts) of all milk bought from members of said Association.

(3) To the Philadelphia Inter-State Dairy Council, 2c per 100 pounds (46 1/2 quarts) of all milk bought from other producers at prices listed herein.

The funds so derived are to be used by the recipients for improving standards of quality in production and distribution of milk in the Philadelphia Milk Shed, for improvements and stabilization of market and for an educational campaign advertising the local value of dairy products.

BASIC PRICE January, 1930 F. O. B. Philadelphia Grade B Market Milk		BASIC PRICE Country Receiving Stations January, 1930	
Test Per Cent	Per 100 Lbs.	Quotations are at railroad points. Inland stations carry differentials subject to local arrangements.	Prices are less freight and receiving station charges.
1.05	1.29	11 to 20	2.77
1.15	1.35	21 to 30	2.75
1.25	1.41	31 to 40	2.74
1.35	1.47	41 to 50	2.72
1.45	1.53	51 to 60	2.71
1.55	1.59	61 to 70	2.69
1.65	1.65	71 to 80	2.68
1.75	1.71	81 to 90	2.67
1.85	1.77	91 to 100	2.66
1.95	1.83	101 to 110	2.64
2.05	1.89	111 to 120	2.63
2.15	1.95	121 to 130	2.62
2.25	2.01	131 to 140	2.61
2.35	2.07	141 to 150	2.60
2.45	2.13	151 to 160	2.59
2.55	2.19	161 to 170	2.58
2.65	2.25	171 to 180	2.57
2.75	2.31	181 to 190	2.56
2.85	2.37	191 to 200	2.55
2.95	2.43	201 to 210	2.54
3.05	2.49	211 to 220	2.53
3.15	2.55	221 to 230	2.52
3.25	2.61	231 to 240	2.51
3.35	2.67	241 to 250	2.50
3.45	2.73	251 to 260	2.49
3.55	2.79	261 to 270	2.48
3.65	2.85	271 to 280	2.47
3.75	2.91	281 to 290	2.46
3.85	2.97	291 to 300	2.46

JANUARY SURPLUS PRICE At All Receiving Stations		JANUARY SURPLUS PRICES F. O. B. Philadelphia	
Test Per Cent	Per 100 Lbs.	Test Per Cent	Per 100 Lbs.
1.05	\$1.34	3.05	\$1.92
1.15	1.38	3.15	1.96
1.25	1.42	3.25	1.98
1.35	1.46	3.35	2.00
1.45	1.50	3.45	2.02
1.55	1.54	3.55	2.04
1.65	1.58	3.65	2.06
1.75	1.62	3.75	2.08
1.85	1.66	3.85	2.10
1.95	1.70	3.95	2.12
2.05	1.74	4.05	2.14
2.15	1.78	4.15	2.16
2.25	1.82	4.25	2.18
2.35	1.86	4.35	2.20
2.45	1.90	4.45	2.22
2.55	1.94	4.55	2.24
2.65	1.98	4.65	2.26
2.75	2.02	4.75	2.28
2.85	2.06	4.85	2.30
2.95	2.10	4.95	2.32
3.05	2.14	5.05	2.34

When milk is not tested the price f. o. b. Philadelphia is 8 cents per quart.

JANUARY SURPLUS PRICE At All Receiving Stations		MONTHLY BASIC PRICE OF GRADE B OR MARKET MILK	
Test Per Cent	Per 100 Lbs.	Test Per Cent	Per 100 Lbs.
1.05	\$1.34	3.05	\$1.92
1.15	1.38	3.15	1.96
1.25	1.42	3.25	1.98
1.35	1.46	3.35	2.00
1.45	1.50	3.45	2.02
1.55	1.54	3.55	2.04
1.65	1.58	3.65	2.06
1.75	1.62	3.75	2.08
1.85	1.66	3.85	2.10
1.95	1.70	3.95	2.12
2.05	1.74	4.05	2.14
2.15	1.78	4.15	2.16
2.25	1.82	4.25	2.18
2.35	1.86	4.35	2.20
2.45	1.90	4.45	2.22
2.55	1.94	4.55	2.24
2.65	1.98	4.65	2.26
2.75	2.02	4.75	2.28
2.85	2.06	4.85	2.30
2.95	2.10	4.95	2.32
3.05	2.14	5.05	2.34

MONTHLY SURPLUS PRICES 4% At All Receiving Stations		MONTHLY BASIC PRICE OF GRADE B OR MARKET MILK	
Test Per Cent	Per 100 Lbs.	Test Per Cent	Per 100 Lbs.
1.05	\$1.34	3.05	\$1.92
1.15	1.38	3.15	1.96
1.25	1.42	3.25	1.98
1.35	1.46	3.35	2.00
1.45	1.50	3.45	2.02
1.55	1.54	3.55	2.04
1.65	1.58	3.65	2.06
1.75	1.62	3.75	2.08
1.85	1.66	3.85	2.10
1.95	1.70	3.95	2.12
2.05	1.74	4.05	2.14
2.15	1.78	4.15	2.16
2.25	1.82	4.25	2.18
2.35	1.86	4.35	2.20
2.45	1.90	4.45	2.22
2.55	1.94	4.55	2.24
2.65	1.98	4.65	2.26
2.75	2.02	4.75	2.28
2.85	2.06	4.85	2.30
2.95	2.10	4.95	2.32
3.05	2.14	5.05	2.34

MONTHLY SURPLUS PRICES 4% At All Receiving Stations		MONTHLY BASIC PRICE OF GRADE B OR MARKET MILK	
Test Per Cent	Per 100 Lbs.	Test Per Cent	Per 100 Lbs.
1.05	\$1.34	3.05	\$1.92
1.15	1.38	3.15	1.96
1.25	1.42	3.25	1.98
1.35	1.46	3.35	2.00
1.45	1.50	3.45	2.02
1.55	1.54	3.55	2.04
1.65	1.58	3.65	2.06
1.75	1.62	3.75	2.08
1.85	1.66	3.85	2.10
1.95	1.70	3.95	2.12
2.05	1.74	4.05	2.14
2.15	1.78	4.15	2.16
2.25	1.82	4.25	2.18
2.35	1.86	4.35	2.20
2.45	1.90	4.45	2.22
2.55	1.94	4.55	2.24
2.65	1.98	4.65	2.26
2.75	2.02	4.75	2.28
2.85	2.06	4.85	2.30
2.95	2.10	4.95	2.32
3.05	2.14	5.05	2.34

FIFTEEN NEW MASTER FARMERS HONORED BY THE "PENNSYLVANIA FARMER"

Fifteen new Master Farmers, who were elected this year from Pennsylvania, New Jersey, Maryland, and Delaware for their outstanding pioneering in some phase of agriculture, were honored at a Master Farmers' Banquet, held on January 23rd, in Harrisburg, during the Farm Products Show.

The Master Farmer movement was started in 1927 by the "Pennsylvania Farmer." The awards which are given each year are decided upon after careful records kept by four hundred neighbor farmers and submitted to a Board of Master Farmer Judges, made up of heads of state departments of agriculture and agricultural colleges.

H. H. Snively, a Master Farmer of Lancaster County, acted as toastmaster.

Brief addresses were delivered at the Harrisburg Banquet, by E. S. Bayard, Editor-in-Chief of the Pennsylvania Farmer, Dean Watts, of State College; F. P. Willits, of Delaware County, formerly Secretary of Agriculture, and by two Master Farmers of other years, F. C. Bancroft, of Kent County, Del., and John Schrops, of Schuylkill County.

The score card on which the Master Farmer awards were made was outlined as follows:

- I. Operation of Farm
 1. Maintenance of soil fertility.
 2. Crop rotation.
 3. Seed used.
 4. Quality of livestock: quality and variety of fruit trees and truck crops.
 5. Feeding and care of livestock: care of fruit trees and truck crops.
 6. Efficient use of man and horse labor.
 7. Adequate tools, machinery and equipment well housed and repaired.
 8. Convenience of farm arrangement.
- II. Products of farm, yield and quality.
- III. Business Methods and Ability
 1. Relation of income to expenses.
 2. Accounting methods.
 3. Business reputation.
 4. Marketing methods.
- IV. General Farm Appearance and Upkeep
 1. Repair and upkeep of buildings.
 2. Appearance of yards.
 3. Condition of fields.
 4. Condition of fences and ditches.
- V. Home Life
 1. Convenient house.
 2. Labor-saving equipment in home.
 3. Character as father and husband.
 4. Education and training of children.
- V. Citizenship
 1. Neighborliness.
 2. Interest in schools and churches.
 3. Interest in other community enterprises.
 4. Interest in local and national government.

The Gold Medals were awarded by C. L. White and G. W. Harris, of the "Pennsylvania Farmer."

James Ewart, Middlesex County, New Jersey, started in 1907, and for eighteen

years operated on a share basis. Bought a 132-acre farm five years ago, which he has paid for from past four white potato crops. One of those who helped to bring potato growers and dealers in line for the Farm Bureau potato growing agreement. Produces about seventy acres of potatoes each year, in addition to corn, wheat, rye, and some poultry.

Chas. Fittig, Atlantic County, New Jersey, owned a seventy-acre fruit and produce farm, produces many prize-winners at horticultural shows. Started a prize, sweet potato growing project through his local board.

Franklin G. Rue, Monmouth County, New Jersey, started in Denison University for engineering, but because of illness returned to farming. Began to operate

specialized poultry plant; some fifty acres of potatoes are grown annually from certified seed and a program of soil fertility is being followed. Many electrical appliances in the Anthony home.

C. R. Bauernmaster, Somerset County, Penna. From school to Master Farmer in fifteen years. Began as a farm tenant, now over 180 acres of fertile soil. Mr. Bauernmaster has made the 400 Bushel Club five times in six years. Twenty-five cows contribute the largest single item to the farm.

Henry F. Garber, Lancaster County, Penna., farms record-breaking corn and wheat of the finest seed quality. Has produced 3,603 lbs. of dry, shelled corn on a measured half acre. Owns dairy herd with silo and other modern equipment.

400 Bushel Potato Club four years in succession and produced heaviest calf in the eastern half of the United States. As the acreage increased and new uses were found for the crop, the machinery for harvesting the seed has been developed to high efficiency. In the principal grain producing sections the grain binder, the self-rake reaper, and the combine are now used for harvesting the seed. In a publication recently issued by the United States Department of Agriculture, Farmers' Bulletin 1605-F, "Soybean Hay and Seed Production," the story of the rapid rise of the soybean to its present place in American agriculture is traced, and suggestions are made as to the use of the crop.

Soybean hay should be thoroughly cured before being stacked, housed or baled, as there is danger of molding when it is stored or baled too green or too soon after a rain. Soybean hay is but little more difficult to cure than hay from other legumes, and may be handled successfully by about the same methods. The crop is at its best for hay when the seeds are about half developed.

The crop will do well on many soils. It will grow well on soils too acid for red clover, sweet clover, or alfalfa. It is excellent as a summer catch crop following early crops, or for fields not in the regular rotation.

The publication discusses the time and methods of cutting for hay and gives the best methods of curing the hay; and as to the seed, it discusses time of harvesting, method of harvesting, threshing, and storage.

Tentative United States standards have been prepared by the United States Department of Agriculture for use in the marketing of soybean and soybean mixed hay, and standards have been prepared for grading the beans.

Soybeans which are to be stored as seed should be thoroughly dry when threshed. After threshing, the beans should be watched carefully to avoid heating and molding. Heating is especially likely to occur if the seed is bulked in large quantities in a bin or in a poorly ventilated room. Soybeans are seldom attacked by weevils or other insects which attack most other beans and peas.

The bulletin may be obtained free from the Office of Information, Department of Agriculture, Washington, D. C., as long as the supply available for free distribution lasts.

Fifteen New Master Farmers

(Continued from page 6)

mandy Farm are to be found throughout the whole country east of the Rocky Mountains. Hundreds of premiums have been won at the most important fairs in the country. No herd of Berkshire Swine has won more than \$3,000 in prizes on the show circuit in one season.

Feed Calves Well

Keep the dairy heifers growing. They will develop into larger cows and better milk producers if not stunted through short rations or neglect during the period of growth.

Indications are that the total number of birds in all farm flocks in the country at the end of 1929 will be five per cent greater than at the end of 1928, or about the same as at the end of 1927, says the Bureau of Agricultural Economics of the United States Department of Agriculture.

(Continued on page 7)



OUTSTANDING FARMERS IN FOUR STATES RECEIVE AWARDS

The fifteen men in the group shown above are well satisfied with their lot as farmers. They come from four states and are part of the 1929 addition to the "Master Farmer" organization. Twelve of the fifteen received their medals at a banquet in their honor at the Penn-Harris Hotel on January 23, while the other three, who also attended the banquet, received their awards at the New Jersey State Farm Show on January 15. The group includes:—First Row, left to right:—John McDowell and Andrew McDowell, of Mercer County, Penna.; Second Row, left to right:—Norman E. Rishel, York, R.D. 8; George M. Anthony, Straoustown, Berks County; Guy A. Leader, York, R.D. 2; John D. Reynolds, Middletown, New Castle County, Delaware; Harvey C. Kreitz, Cambridge Springs, Crawford County, Pa.; Third Row, left to right:—Charles F. Preston, Lancaster County; Guy L. Hayman, Northbrook, Chester County; Henry F. Garber, Mt. Joy, R.D. 3; Ray C. Norman, Street, Harford County, Maryland; Franklin G. Rue, James C. Ewart and Alfred F. Sloan, all of New Jersey.

280-acre farm. Dairy grain and potatoes provide the menu. A herd of eighteen milking cows, housed in a modernly equipped milking barn, averaged 10,500 lbs. of milk and 330 lbs. of butterfat during the past year. Mr. Rue is President of his County Board of Agriculture, Member of Board of Education and of New Jersey Farm Bureau Federation.

Alfred Sloan, Salem County, New Jersey. He started to farm on a share basis. From this humble start, he later bought his farm and has brought under his management three additional farms. By the use of modern machinery, and a well-balanced system of cropping, he has been able to operate the present two hundred acres with but one man more than was required twenty years ago on a fifty acre farm. The Sloan home has hot-water heat and every convenience for saving work.

Geo. M. Anthony, Bucks County, Penna. A partnership was formed with his father after Mr. Anthony returned from a two-year course in agriculture at Pennsylvania State College. Has finally bought his father's farm and acquired additional acreage. Operates a highly

The Garbers live in an old stone house in a beautiful setting with carefully tended vegetable and flower garden.

Guy L. Hayman, Chester County, Penna. Took management of father's farm, later buying a partnership. The one hundred acres of orchards include 65 acres bearing apples and twenty of peaches. Packing house records show unusually high percentage of top grades. Electricity cooks, refrigerates, and does many things in the Hayman house.

Guy A. Leader, a schoolteacher who turned back to the farm. Quality idea carried to the limit on the Leader farms. Market eggs graded to bring top prices. Poultry houses arranged on colony system. All the houses have electric lights, running water, and porcelain drinking fountains. Flocks total more than 4,000 hens.

Andrew T. and John C. McDowell, Mercer County, Penna. Both were city-bred boys. Bought what was considered poorest farm in section. Active in extension projects. Invested in the first real potato spraying outfit in county and have run spraying demonstrations for past eleven years. Have carried on other demonstrations as well. Qualified for

Soybeans Become Important Hay and Seed Crop

In the last few years soybeans have become important as a hay and seed crop in the eastern half of the United States. As the acreage increased and new uses were found for the crop, the machinery for harvesting the seed has been developed to high efficiency. In the principal grain producing sections the grain binder, the self-rake reaper, and the combine are now used for harvesting the seed. In a publication recently issued by the United States Department of Agriculture, Farmers' Bulletin 1605-F, "Soybean Hay and Seed Production," the story of the rapid rise of the soybean to its present place in American agriculture is traced, and suggestions are made as to the use of the crop.

Soybean hay should be thoroughly cured before being stacked, housed or baled, as there is danger of molding when it is stored or baled too green or too soon after a rain. Soybean hay is but little more difficult to cure than hay from other legumes, and may be handled successfully by about the same methods. The crop is at its best for hay when the seeds are about half developed.

The crop will do well on many soils. It will grow well on soils too acid for red clover, sweet clover, or alfalfa. It is excellent as a summer catch crop following early crops, or for fields not in the regular rotation.

The publication discusses the time and methods of cutting for hay and gives the best methods of curing the hay; and as to the seed, it discusses time of harvesting, method of harvesting, threshing, and storage.

Tentative United States standards have been prepared by the United States Department of Agriculture for use in the marketing of soybean and soybean mixed hay, and standards have been prepared for grading the beans.

Soybeans which are to be stored as seed should be thoroughly dry when threshed. After threshing, the beans should be watched carefully to avoid heating and molding. Heating is especially likely to occur if the seed is bulked in large quantities in a bin or in a poorly ventilated room. Soybeans are seldom attacked by weevils or other insects which attack most other beans and peas.

The bulletin may be obtained free from the Office of Information, Department of Agriculture, Washington, D. C., as long as the supply available for free distribution lasts.

Fifteen New Master Farmers

(Continued from page 6)

mandy Farm are to be found throughout the whole country east of the Rocky Mountains. Hundreds of premiums have been won at the most important fairs in the country. No herd of Berkshire Swine has won more than \$3,000 in prizes on the show circuit in one season.

Feed Calves Well

Keep the dairy heifers growing. They will develop into larger cows and better milk producers if not stunted through short rations or neglect during the period of growth.

Indications are that the total number of birds in all farm flocks in the country at the end of 1929 will be five per cent greater than at the end of 1928, or about the same as at the end of 1927, says the Bureau of Agricultural Economics of the United States Department of Agriculture.

Three Times a World's Champion

Highfield Colantha Sylvia, 848265, a Holstein cow owned by Mr. John G. Ellis of Highfield Farm, Lee Mass., has completed her third World's Record made with machine milking. Her figures for the 305-day division as given by her owner are 701.37 pounds of fat, which would be 876.6 pounds of butter from 19,058.9 pounds of milk. This record entitles her to the World's Championship for which she officially qualified on February 17th, when she dropped a fine heifer calf.

In her previous lactation period in Class B she broke the World's Record in both the 305-day and 365-day divisions, freshening again as a senior 4-year-old and making a 7-day record of 30.68 pounds of butter from 652.3 pounds of milk which she followed with the World's Championship production given above. She was bred and raised by Mr. Ellis at Highfield Farm.

All three of her World's Records have been made with machine milking as have the many records made by other individuals of this herd. Mr. Ellis although specializing in purebred holsteins selected and bred for type and production, maintains a thoroughly practical dairy where an extremely low bacteria count milk is produced. For six years he has used a milking machine and the results he has obtained during that time from the viewpoint of production, clean milk and time and labor saving have firmly convinced him that machine milking is here to stay as the solution to the formerly troublesome and perplexing question, "How am I to profitably milk so as to produce the quality milk demanded by consumers with even mediocre help difficult to secure?"

Mr. Ellis, speaking with the authority of a breeder and dairymen of long experience, states:

"In the past five years we have made 12 World's Records (not including this last one) at the farm for milk or butter on cows bred and raised at this place, and with but few exceptions all were milked throughout their tests by one of the leading milking machines. We have never found that the machine has ever injured a cow. I find that the milker is an insurance against shortage of labor that is decidedly worth while.

"We are now producing Grade A milk for the New York market. By the use of milking machines and solution rack we are keeping the bacteria count of our milk at an average of 1600 to 2400 per c. c."

Slightly More Wheat Seeded For 1930 Harvest

Acreage of winter wheat planted this fall by farmers in Pennsylvania is two per cent more than the seeded area in the fall of 1928, according to the Penna. Federal-State Crop Reporting Service.

The acreage sown this fall is estimated to be 1,145,000 acres compared with 1,123,000 acres sown in the fall of 1928, of which 1,112,000 acres remained to be harvested this year. Abandonment due to winter killing, has usually not exceeded three per cent, last year it amounted to only one per cent.

The condition of the 1929 wheat plantings on December 1 was reported as 89 per cent, one point below both the condition of the plantings on December 1 a year ago and the average December condition of 90 per cent. Wheat was greatly helped by the favorable weather in November and is going into winter in good condition. In the southeastern part of the State growth during the month was exceptionally rapid. A fall of snow during the latter part of the month served to protect the young plants from the cold weather.

In One Bag—

A Chick STARTER

A Chick GROWER



FOR a good start, chicks need a clean, fresh feed that combines all the various proteins, minerals, vitamins, and energy yielding feeds essential to quick growth. To carry them through to healthy, vigorous maturity, chicks need these SAME FEEDS in increasing amounts.

Amco Starting and Growing Mash gives you all these feeds in one bag. Feed it alone as an all-mash for the first eight weeks. Then, after the broilers are gone, keep right on feeding this mash with an increasing amount of Amco Scratch Grains to provide for the growing energy requirements.

The Open Formula tags on all bags give feeding directions and show that this mash contains 100 lbs. per ton of Dried Buttermilk, the most sanitary and convenient form of this important chick builder. It may be purchased with or without Cod Liver Oil mixed in.

For full information see your nearest Amco Agent or write to the address below.

AMCO FEED MIXING SERVICE

DIVISION OFFICE:  MUNCY, PA.

DAIRYMEN

Cool Your Milk with Kilowatts!

Keep your bacteria counts down . . . and secure the highest premiums on your milk by using an



With electricity and the Esco, highest premiums are easy. Uniformly successful and universally acknowledged by dairy experts to be the most practical method ever invented for quickly cooling milk to below 50° and keeping it cold.

No more bothersome ice to handle—no more troubles due to unsanitary, insufficient cooling. Automatic, efficient, economical.

Decide now to cool and store your milk this modern way—with ESCO and electricity. Ask for full details.

ESCO CABINET COMPANY
WEST CHESTER, PA.



THE New McCormick-Deering is bound to please—and besides we may let you run the payments over twelve months time so the machine can earn its price. The new McCormick-Deering is really NEW. It is re-designed, improved in many ways, starting with the remarkable Japanese

finish, and the ball-bearing equipment at all high-speed points in all the sizes. Try this easy-turning machine. See the new low design, the perfect lubrication, the many features that make this an ideal combination of close skimming, light running, long life and lasting beauty. Six sizes—hand, belted, and electric.

The International Harvester Co.
OF AMERICA

Philadelphia Harrisburg Baltimore

Suggestions For the Improvement of Dairy Barns in the Southeastern Section of Penna.

By M. G. Betts, and M. A. R. Kelley, Assistant Engineer, Bureau of Public Roads, U. S. Department of Agriculture

(Continued from last month)

Intakes
Intakes may be installed in frame walls with much less difficulty than in the masonry construction common to the type of barn under consideration. Ordinarily, an intake is a rectangular duct with a vertical leg 5 feet or more in length and forming a trap which tends to prevent or reduce back-drafting, that is, the outward movement of warm stable air. The fact that vertical leg does not always prevent back-drafting has led to the development of commercial intakes equipped with valves which automatically regulate the amount of entering air and prevent the escape of warm air from the stable. They may be built into a wall or into a short horizontal duct.

Several methods of installing intakes in connection with stone walls are shown in Figure 7. The method shown in A may be

the chance of saving the stock is greatly lessened.

Stalls and Equipment
Good stall floor construction is the first essential in stable sanitation. Without proper drainage no stall floor construction can be considered good. Dirt floors, very common in the region surveyed, cannot be properly drained, the result being a foul wet gutter and stall affording excellent harborage for bacteria and vermin. Because such floors are difficult they are neglected and the consequence is dirty cows and a stable filled with foul air. Where an attempt is made to keep a stable with such floors clean the extra labor involved would go a long way toward paying for better construction.

Fig. 8 (see page 12) illustrates two methods of flooring. The high back manger in A prevents the pushing or throwing of feed by

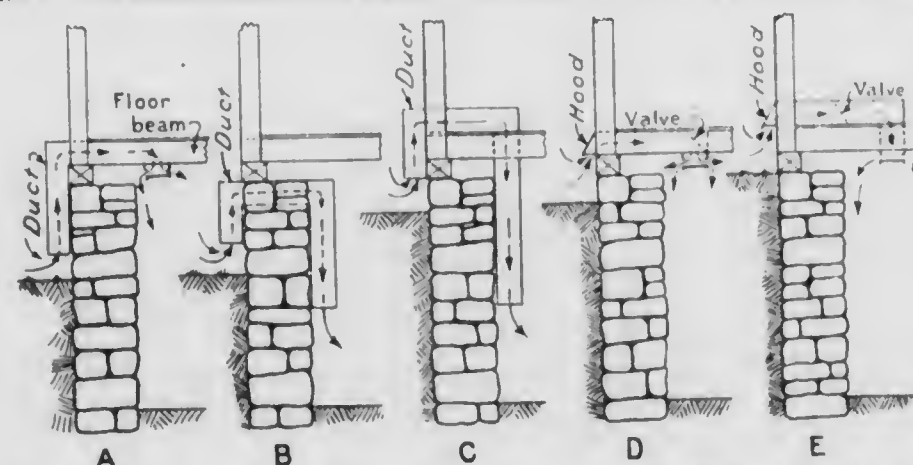


Fig. 7. Methods of installing intakes. A and B may be used where the grade is sufficiently below the top of the wall. C, installation where the grade is close to top of wall. D, intake built between joints and equipped with automatic valves. E, same kind of intake built on mow floor.

used when the ground level is not too high above the stable floor and where for any reason the duct cannot be extended downward at least 3 feet on the inside. The arrangements shown in B and C are preferable to method A as they provide greater assurance against back-drafting since warm air at the ceiling of the stable is trapped. The outer intake openings of an installation as shown in E are to be seen above the windows in Plate 6-A. More detailed information regarding the construction and use of intakes will be found in Farmers' Bulletin 1393, referred to previously.

Hay Chutes

Open hay chutes prevent regulation of stable ventilation and temperatures since the warm stable air escapes into the mow above. Stable air should not be vented into the mow because the hay absorbs moisture from the stable air. As the warm, moisture-laden air comes into contact with cold air in the mow or with cold roof surfaces, the moisture is condensed and deposited on the hay and on roof timbers. If the outside temperature is very low frost may be formed. Under favorable conditions spontaneous ignition may occur in hay so wetted. Moisture on the under side of the roof causes rotting of timbers and shingles. Not only does the warm air escape into the mow but during winter nights cold and heavier air drops from the mow into the stable causing drafts highly injurious to stock. Many head of stock have been lost through sickness traceable to such a cause. Separate outtakes flue such as previously described should be provided for the ventilation of cow stables.

Open hay chutes are also undesirable because, in case of a mow fire, burning hay may drip into the stable or it fire roignates in the stable the open chute permits a draft which fans the flames. In either case

the cows into the alley, and the possibility of their being injured by slipping and falling as they strain after feed that is out of reach. Another advantage afforded by this manger is that the alley floor may be made level with the stall floor thus gaining a little headroom where ceilings are low. Directions, with dimensions, for the construction of dairy barn floors are given in bulletins issued by the United States Department of Agriculture.⁶

It is not always feasible for an owner to, at one time, lay a complete new and properly designed floor in his barn, but it is possible to do it a little at a time. As the first step the complete gutter with the rear half of the stall floor may be laid with the proper pitch to drain outlet. It is advisable to lay this much at one time in order to avoid joints where liquid may accumulate. The manger and stanchion curb may then be laid but before the concrete is placed all pipes, drains, stanchions, sleeves, uprights and anchor bolts should be set accurately in the forms. The front part of the stall floor should be the next step, and then either the feed or litter alley or both. Plate 7-B shows how one progressive dairyman improved his barn. In this case the stall floor, gutter and litter alley were laid at one time, the old wooden partitions and managers being left until funds were available for new stall equipment.

The least that can be done by way of improving a dirt floor is shown in Fig. 9 (See page 2) In A, a 6 or 8 by 8-in. timber is laid at the rear of the stall and held in place by iron rods or lengths of pipe driven into the

⁶ Betts, M. G. and Miller, T. A. H. SMALL CONCRETE CONSTRUCTION ON THE FARM U. S. Dept. Agr. Farmers' Bul. 1480, 17 p., illus., 1926. Parks, K. E. DAIRY-BARN CONSTRUCTION, U. S. Dept. Agr. Farmers' Bul. 1342, 22 p., illus., 1923.

(Continued on page 12)

Types of Newspaper Publicity Being Used by the Dairy Council in Many Philadelphia Newspapers

Milk

an honest food, at an honest price



Abe Lincoln wasn't famed for his wit—though one of the world's greatest story tellers. He wasn't famed for eloquence—though his Gettysburg speech will live forever. He wasn't famed for manners—though a true gentleman in the fullest meaning of that word. He was, "Honest Abe."

Milk, in its homely usefulness, in its honest economy—sometimes makes us forget its truly unusual qualities. There is no other food that quite matches it. For the toddling youngster, for the hard muscled athlete, for the girl protecting her beauty, for the invalid winning back health—for the man who uses his muscles, and the brain worker as well. Doctors are practically a unit in prescribing milk in every diet.

But its greatest quality, like Lincoln's, is its availability to everyone, its closeness to "real folks." For milk is the cheapest, as well as the most complete, of all foods. The money spent for a quart of milk cannot buy greater value in any other food.

Remember two things. Milk in Philadelphia is cheaper than in any other big city. Philadelphia's milk supply is doubly protected—by your city officials, and by the Philadelphia Interstate Dairy Council.

for economy and health ~ milk

© P. D. C. 1930

The best of all foods is also the cheapest

USUALLY the finest things cost the most. But not in food. For of all the foods nature gives us, none is so complete, none is so well balanced, none feeds every part of the body as milk does. And yet of all foods, milk is cheapest.

Use it freely, to drink, to cook for it builds the family health—and protects the family pocketbook.

drink milk

Highest in health value—lowest in price

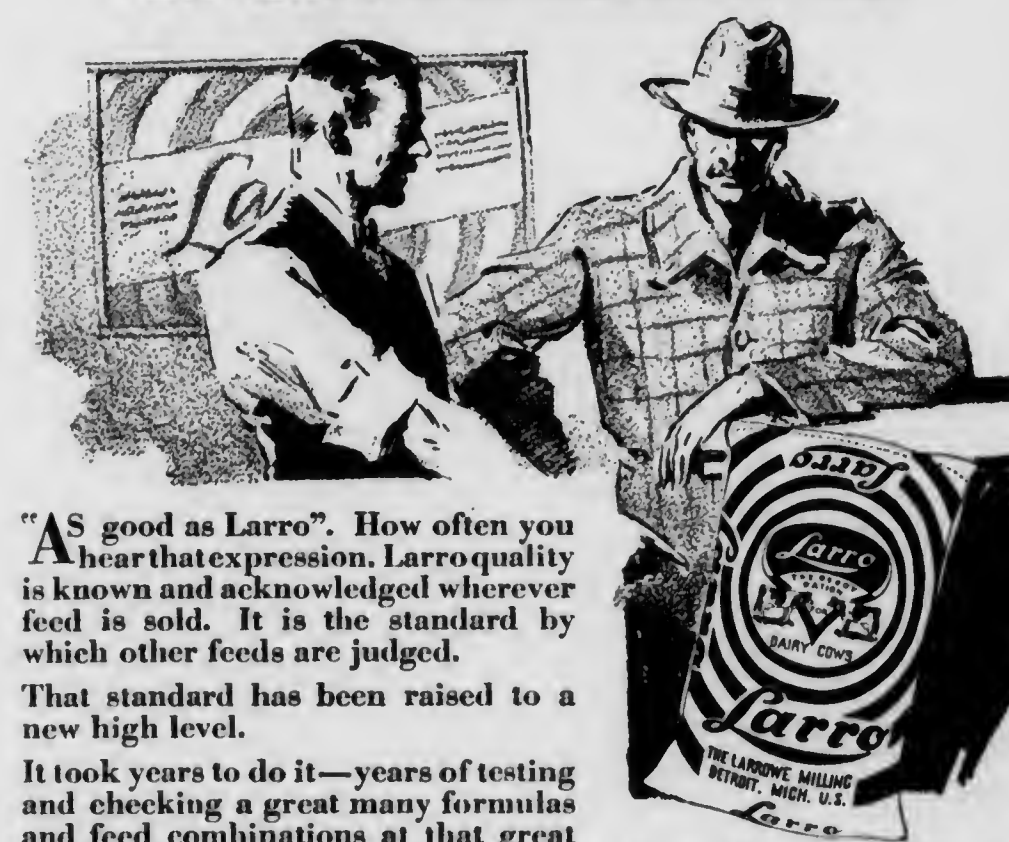
WE, ALL of us, have our money worries. But there's one big ally for the housewife in her milk bottle. For milk saves the pennies, and saves family health, too. It is the most complete of all foods, feeding amply every corner of the body.

It is also the cheapest, the dollar spent for milk cannot buy greater value in any other food. And in Philadelphia milk is cheaper and better than almost any other large city.

drink milk

Larro

sets a new Standard



"As good as Larro". How often you hear that expression. Larro quality is known and acknowledged wherever feed is sold. It is the standard by which other feeds are judged.

That standard has been raised to a new high level.

It took years to do it—years of testing and checking a great many formulas and feed combinations at that great Research Farm of yours—the Larro Research Farm. No theoretical improvement would do. Fads and theories are plentiful, but they do not fill milk pails. In theory—there may be feeds "as good as Larro"—but not in profitable results. **Only the Larro Mill backed by the work of the Larro Research Farm could make a feed as good as Larro. Only Larro methods could improve it.**

The greater feeding value of the improved Larro has been proved decisively by long as well as short time tests under actual farm conditions. You can prove it on your own farm. You will find this better Larro the same uniform, health-building feed as ever, but higher than ever in milk production, and **higher in profit over feed cost**, (by at least \$3.00 a ton) for it costs no more than before.

If you have been feeding Larro in the past you know what this extra profit means, added to the high profit over feed cost you have already been making. If you are not already feeding Larro, start your cows on it now. Compare your production and your profit with what you have been getting. And, when you are offered feeds "As good as Larro", remember that results—not phrases or theories—are the foundation of dairy profits.

THE LARROWE MILLING COMPANY
DETROIT, MICHIGAN

Larro

FEEDS THAT DO NOT VARY
FOR POULTRY—HOGS—DAIRY

Bake with Larro Family Flour, it's equally good for biscuits, cakes, bread and pie

EDITOR'S NOTE

The advertising copy on the adjoining columns represents the class of advertising copy used by the Dairy Council in the leading Philadelphia newspapers to induce the consumer to use more milk. Beside the English language papers this copy is also being used in Italian, and Hebrew newspapers and also in one paper largely read by the negro population.

Let Us Design Your Stationery

Horace F. Temple
Printer

Bell Phone No. 1
WEST CHESTER, PA.



Starting and Stopping the Women

"When you have some part to play in the scheme of farm things, don't hang back and say you're just a farmer's wife. Speak up and get in the swim of things," urged Mrs. Charles Sewell, Director of Home and Community Work of the American Farm Bureau Federation, in addressing the annual meeting of the Society of Farm Women of Pennsylvania which took place on January 21st, at Harrisburg, Pennsylvania, in connection with the recent Farm Products Show.

Women have a natural gift for organizing things, declared Mrs. Sewell. This tendency to hang-together has great value on the farm when co-operation is more and more necessary in marketing its products to the best advantage.

The farm woman is in every sense her husband's business partner. She lives in their factory, knows what fields are planted in which grains, and knows when the tractor won't run. She helps stretch the income with extra butter and chickens.

This same farm woman needs industry in every bone. Man's work is from sun to sun, but woman's work is never done. The reason for this difference is that women never know when they've done a good day's work and thus when to stop. Men are willing to leave some of the field for the next day's plowing.

There are many contributions which farmer's wives are making. Patience to help in planting a new crop when the last one was a failure. Loyalty to boost community meetings and their own co-operative organization.

Your Own Travelling Library

Winter and the early spring months before field work gets into full swing on the farm is the time of year the family can do some reading of good books.

The Department of Public Instruction of Pennsylvania makes it possible for any small rural community in the state to borrow a travelling library.

These travelling libraries contain fifty volumes which may be kept six months or changed more frequently if desired. They contain both adult and juvenile books: fiction, poetry, adventure, history, travel, biography, literature and science. Each library is made up from a list of books submitted, or where there are no requests, the books are chosen to suit the community's interest as far as possible.

One of these libraries may be secured upon the request of six taxpayer-trustees, who are responsible for securing the library the choice of a volunteer librarian, and a place where the library is to be kept. This should be some public location such as a store or post office, but a private dwelling may be used.

The only expense is that of paying for freight transportation. While the books must be free to the readers, a fine may be charged for over-due books. This might be used to defray the transportation.

The books, a bookcase, and circulating cabinet are all shipped in a large packing box. Everything necessary to keeping a record of the books borrowed will be found with the books.

Write to the Department of Public Instruction, Harrisburg, Pa., for further information about these travelling libraries.

The Thirty-Dollar School Cafeteria

Thirty dollars isn't a big sum of money. As a matter of fact, thirty dollars can look about as big as a drop of milk when you want to start a school cafeteria, and that's every cent on hand.

But perhaps you yourself have sent the children off to school on a bitter cold morning, wishing with all your heart that there was some place at school where you knew they would have a comfortable place at noon recess in which to have a little something hot and nourishing to eat.

dated basement room—and started to work.

There were seven girls in the home economics class of the eleventh grade who took hold of the idea. During Institute Week they white-washed the walls a light green and the ceiling a soft cream. They ordered paint and decorated the tables, benches and all other woodwork within sight with various bright colors.

An awning of striped cretonne was hung over the table and curtains to match put



CAFETERIA OF NETHER-PROVIDENCE TOWNSHIP SCHOOL, DELAWARE COUNTY, PENNSYLVANIA
(Upper) Room as formerly used; (Below) "Spanish Inn" the Remodelled Cafeteria

If so, you know how the Teachers and Mothers' Club in the Nether-Providence School in Delaware County, Pennsylvania, where most of the 400 children came from a distance, felt about the need for a school cafeteria.

"Where there's a will, there's a way" this school proved it. Last fall they took an empty basement room that looked like an abandoned cell, and turned it into a Spanish Inn, which, we'd venture to say, could compete in atmosphere and attractiveness with any of these new-fangled city tea-rooms. All on thirty dollars, too!

About September some of the members of the school faculty and the Mothers' Club of Nether-Providence went down to visit "Happy Inn," the cafeteria in the Smedley Junior High School, Chester, Pennsylvania, which was started last year as an experiment by the Dairy Council.

The visitors went back home again, looked at the thirty dollars rattling in their pockets, at each other, at the dilapi-

ated windows. These high windows had sloping sills which presented a real obstacle to window boxes. A scheme was devised of putting 10" boards flat against the window, behind which were placed geraniums and ivy. The effect was that of the much desired window boxes.

The art teacher and one of the eleventh grade boys designed and painted a Spanish mural along the length of the bare wall. The appearance of a white porcelain drinking fountain was entirely changed by a tiled background, an effect achieved by decorated beaver board.

A finishing touch to the interior decorating was given by the swinging of a sign, "The Spanish Inn," outside the cafeteria doors. When the entire costs for paint, lumber and other materials were added up, the total was exactly thirty dollars and fifty-eight cents.

The Mothers' Club, which stood staunchly behind every step, did not fail at the crucial point of kitchen problems.

(Continued on page 11)

Feed Sacks for Couch Covers

Many clever new tricks in the trade of decorating a young girl's room at a cost of only a few dollars was demonstrated by the Home Extension Department of Pennsylvania State College, at the recent Farm Products Show.

For example, the couch cover consisted of feed sacks bleached with a strong commercial bleacher. Pillow covers were also of feed sacking bleached and dyed, and had been decorated by drawn threads and Italian hemstitching.

A dressing table had been made from an orange crate. An old vinegar jug formed one of the popular styles of desk lamps. By the use of a cork, the usual necessity for boring a hole in the bottom of the jug for the electrical cord was eliminated by the use of a cork stopper. Brown wrapping paper treated with raw linseed oil made a lampshade which gave a lovely soft light. Dry oil paint had been rubbed in the lower inch of the shade to form a decorative border.

The total cost of the improvised closet and fittings, dressing table, two pairs of window curtains, couch cover, desk set and lamp shades was exactly seven dollars and thirty-two cents.

Complete directions for the improvised closet, orange crate dressing table, and other items may be secured by writing to your own County Home Extension worker for "My Own Room Club Project," No. 775.

Reducing the High Cost of Sickness

It costs the average farm family in the United States a little more than a hundred and five dollars a year to pay the doctors' bills, and there are many who need medical service but cannot afford it, according to a survey conducted recently by a farm woman's magazine.

Some farm families of Saskatchewan, Canada, have found a plan whereby they can pay their doctor's and hospital bills without worry. Ten dollars a year pays these farm families the doctor's bills. Twelve dollars settles the hospital account, with no extra charges for new babies.

Money to pay the doctor's salary comes from a general tax fund, resulting in a tax increase of about ten dollars a year for the average half-section farm, or \$3.33 per capita, according to an account of this plan in the Survey Graphic.

The usual doctor's mileage charge of about a dollar a mile is eliminated. Thus a farmer living fifteen miles out in the country actually pays less for the doctor's services than the man near town, for his taxes are less.

Two things in the success of this plan appear to be necessary. A competent conscientious doctor, and reasonableness of the people in calling him.

This unique system of medical service not only provides doctor's services, but nursing care as well. Any person who has been a resident of the community for three months is entitled to fifteen days free nursing care, if necessary, while an additional nine days is allowed for confinement cases.

These rural communities in the heart of the Canadian wheat district have apparently succeeded in reducing the high cost of sickness.

Is Your Child Growing?

DR. HANNAH MCK. LYONS

Mrs. Chickio was an Italian mother. She was going home on a visit. She had been bringing her baby regularly to the Baby Health Station. It was a prize baby. Now she was asking for some literature, "some paper I can take with me to the Old Country to tell my folks what you call a prize baby."

As I watched the eager happy face I could not but wonder how many of us actually know the "signs of positive health in children."

More and more often parents are asking: "Is my child growing as he should? For what signs ought I to watch?" Parents might once have answered, "Why, he is well when he looks well." But more and more they are now demanding that the information which has been given in scientific language or tucked away in inaccessible places be made plain and available to everyone.

We are indebted to Dr. Hugh Chaplin for a picture of the child in average health, the optimal child. There are so many "undernourished" children and so many who are only average that we are apt to be satisfied with a low standard.

Our guide reads thus: Regularity in all things. Sufficient food of the right kind, varying in amount and selection with the age of the child. Pure cod liver oil daily during the first two years of life (Watch to see if it is digested, and perhaps stop during hot weather.) Plenty of fresh air and sunlight. Plenty of sleep with the windows wide open. Freedom from unnecessary noise and excitement. A bath daily (certainly not less than three times a week). Teeth brushed twice daily. Correction of defects as they occur. (For the detection of these defects a physical examination is needed at regular intervals.) Lastly, happy associations and interesting things to do. (From one to two years of age, this means food and some bright object with which to play).

If we have been careful in the observance of these health needs, by the age of fifteen years we may look for the well-developed characteristics of the optimal child. These characteristics may be divided into two groups: those of the "Outward Signs of the Well Built Body," and "Signs of the Well-Functioning Body."

(To be continued next month)

Our Cold Weather Clothing

Keeping fit in cold weather and avoiding colds and sore throats may depend largely on clothing. For good health, the body should be maintained at an even temperature, since both overheating and underheating are dangerous; and clothing has much to do with the temperature of the body.

Clothing is not warm nor cold in itself, but acts on the body by holding in or conducting away the body's natural warmth. Dry air is a poor conductor of heat and the air spaces in clothing, rather than the clothing itself, are what actually keep the body warm.

For this reason loose, light-weight, porous clothing is recommended for both children and adults. The garment next to the skin is especially important. A porous union suit of cotton generally gives enough protection and is more sanitary than wool because it is easier to wash thoroughly. An underwear fabric that is too thick to let the air through is less warm than a loose fabric that holds air in the meshes. For the same reason two light-weight garments, such as a sweater and a light coat, are often warmer than one heavy one.

Too little clothing wastes the heat of the body; but too much is enervating, for it increases perspiration and a subsequent evaporation may cause a feeling of chill.



THINGS YOU CAN'T SEE IN A FEED!

A HANDFUL of feed...one look reveals certain ingredients...one sniff discovers others. Beyond that your eyes and nose cannot go...yet there is so much more to a handful of feed!

Perhaps with this very handful comes a helpful tag. It lists every ingredient...it may tell how much of each...yet it tells only half the story. It reveals what ingredients but not what kind.

Moisture filled grains...kiln dried grains, sound grains...musty grains, good cod liver oil...worthless cod liver oil, trash filled feed...triple cleaned feed...your eyes and nose can't be sure of these things...and the tag doesn't tell...yet what a difference it makes!

A difference you'll be quick to see when you feed Purina Chows! Purina Chows must do more than stand the test of the eyes...the nose...the tag...it must also stand the test of Purina's broad laboratories...Purina's big experimental farm...hundreds of feedlots like yours...before it can come to you in Checkerboard bags. That's why it will do more for you than any other feed!



SOLD AT THE STORE WITH THE CHECKERBOARD SIGN

The Thirty Dollar School Cafeteria

(Continued from page 10)

Its president volunteered several hours of her time daily for the supervision of the menu, consisting of one substantial hot dish such as meat loaf or spaghetti, a hot drink, and always milk, fruit and buttered rolls. The proceeds from actual sales pays for supplies and a person for the actual cooking—which by the way, is done on an oil stove—and dish-washing.

The plan has proved itself a success, and in the next unit of the school building to be built the board has allotted definite space for the home economics and cafeteria which will more adequately care for the number to be served.

Perhaps the most impressive thing about the "Spanish Inn" is that it shows

conclusively that any school anywhere can do exactly what the Nether-Providence has done. They can see to it that there is a place provided where the children not only can but want to eat a proper lunch at noon.

Merle C. Bush, a graduate of the Pennsylvania State College of Agriculture in the class of 1923, is now with the Quality Control Department. Mr. Bush since graduating from college has been actively engaged in farming. Mr. Bush will take over the duties of Mr. John Bryan in the Chambersburg district.

Philadelphia Inter-State Dairy Council

A co-operative movement established for the dissemination of information and publicity pertaining to the production and distribution of dairy products and their food value in nutrition.

Affiliated with the National Dairy Council

OFFICERS
Dr. Clyde L. King, President
H. D. Allebach, Vice President
C. I. Cohoe, Secretary
F. R. Ealy, Assistant Secretary
R. J. Harrison, Jr., Treasurer
George J. Hauptfuhrer, Assistant Treasurer

Departmental Branches
C. I. Cohoe, Director Quality Control Department
Dr. E. G. Lechner, Assistant Director Quality Control Department
Lydia M. Broecker, Nutrition Department
Del Rose Macan, Dramatic Department
August A. Miller, Publicity Department



The YEARS BEHIND IT

West Brookfield, Mass.
We have been a constant user of O-H Cow-Tone for over seven years. It has kept our herd of thirty cattle in prime condition and is especially valuable before and after freshening. M.B.

Cow-Tone, known so well as an unexcelled conditioner for milk-producing cows, was manufactured after years of laboratory experiments and actual tests. Now it is regarded as a standard tonic for cows.

Dairymen have used it, with success, for more than thirty years, and this is the reason so many in all parts of the country testify to its merits.

Cow-Tone history represents years of research and labor in the service of dairymen. The result is a preparation of proved value and small cost that we guarantee to give satisfaction or your money will be refunded.

Cow-Tone comes in four sizes, 50c, \$1.00, \$4.50, and \$7.00

Our Husbands Co.
Lyndon, Vt.

COW-TONE

OTHER O-H PRODUCTS
COWS' RELIEF OINTMENT for Udder and Teats, 50c and \$1.00.
CALVES' CORDIAL, an Intestinal Astringent for cows and calves, 50c.

Sold at local grain, drug and general stores or by mail prepaid to any address on receipt of price.

FREE. Our new illustrated O-H Cow Book of 24 pages containing valuable information for dairymen will be mailed free to any address on request. Fill in coupon below and mail today.

NAME.....
ADDRESS.....
P.R.

NICE
TRADE MARK REG. U.S.A.

THE NAME TO GO BY—WHEN YOU GO TO BUY
PAINT AND VARNISHES
Write for Color Cards and Booklet "Paint Pointers"
EUGENE E. NICE COMPANY, Inc., PHILADELPHIA

Quaker Hill Farm **Certified Pedigreed Field Seeds**

Higher yielding and better strains of field crops have been produced recently by experiment stations and individuals. They pay much better. We specialize in seeds of these improved strains. Our catalog gives all the facts. Every progressive farmer should read it. Write today for free copy.

K. C. LIVERMORE Box 1 **Honeoye Falls, N. Y.**
CORN OATS BARLEY POTATOES CABBAGE BEANS PEAS WHEAT RYE

When Answering Advertisements Always Mention the Milk Producers' Review

Suggestions For the Improvement of Dairy Barns

(Continued from page 8)

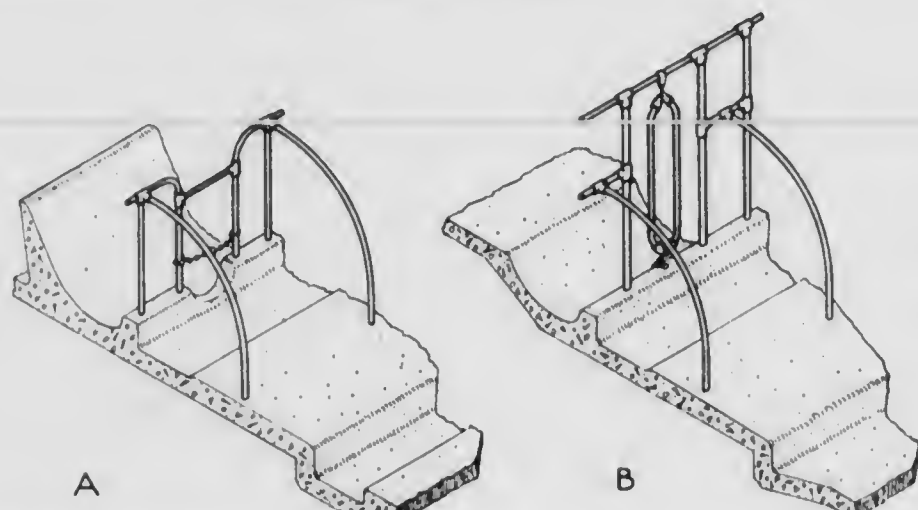


Fig. 8. Concrete dairy-barn floor. A, high back manger and rectangular gutter. B, manger flush with feed alley floor and beveled gutter. The latter is desirable where the litter alley is narrow and for ease in cleaning.

ground through holes bored in the timber. In this way the cows, when lying down, are kept out of the gutter, and are much more easily cleaned. The arrangement should be considered only as a temporary makeshift to be replaced by a proper floor as soon as possible. B is the more desirable method as the concrete gutter may be made the first step in the laying of a complete sanitary floor.

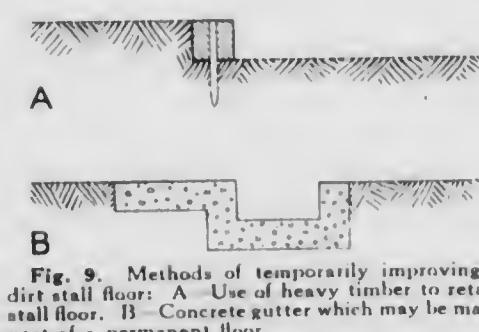


Fig. 9. Methods of temporarily improving a dirt stall floor: A—Use of heavy timber to retain stall floor. B—Concrete gutter which may be made part of a permanent floor.



7B. Finishing a Concrete Floor Laid in an Old Barn

Report of the Quality Control Department Philadelphia Inter-State Dairy Council

The following is a report of the work done by the Quality Control Department of the Dairy Council for the month of December, 1929:

No. Inspections made	1,836
Sediment Tests	4,045
No. Permanent Permits Issued	105
No. Temporary Permits Issued	74
No. Meetings Held	5
Attendance	660
Reels/Movies Shown	15
No. Man Days	9 1/2
Fairs and Exhibits	15
Bacteria Tests Made (Plants)	15,723
No. Miles Traveled	15,723

During the month 27 dairies were discontinued from selling for failure to comply with the regulations—8 dairies were reinstated before the month was up.
To date 151,603 farm inspections have been made.

FEBRUARY AND MARCH Surplus Prices

Under agreement with co-operating buyers, reached on February 3rd, 1930, surplus milk shipped during February and March 1930, will be paid for by co-operating buyers, at a lower price basis. The usual 20 per cent premium will be eliminated.

February Surplus Price

Owing to the tremendous production of butter and its relatively low price, the method of computing the price of surplus milk for February has had to be readjusted. During the month and also in the month of March, surplus prices will be computed on the flat average price of 92 score butter, solid packed, New York City, for the month.

Grow Winter Vegetables

Asparagus, rhubarb and Witlof chichory are vegetables which may be produced from December to May. Forcing these vegetables may be done in a cellar where the temperature can be kept from 50 to 60 degrees Fahrenheit.

Compensation, Automobile & Truck Insurance

Save Money by Giving Us Your Insurance

Our policies furnish Compensation protection as required by the Compensation Act. We protect the employer as well as his employees. We paid a dividend for 1928 of 18%. If interested, write for particulars.

I am interested in having Casualty Insurance for my help and protection for myself, 24 hours in the day. I estimate my payroll for the year at
Occupation
Name
Address

We write insurance in the state of Pennsylvania only.

WE WRITE A STANDARD AUTOMOBILE POLICY. IF INTERESTED, FILL IN THE ATTACHED BLANK AND WE WILL GIVE YOU FULL INFORMATION

Name..... Address..... City..... County.....
Insurance Begins.....19..... Expires.....19.....
Business..... Mfg. Name.....
Type of Body..... Year Model..... No. Cylinders.....
Serial No..... Motor No..... Truck.....
Capacity..... Serial No..... Motor No.....

Pennsylvania Threshermen & Farmers' Mutual Casualty Insurance Co.

311 Mechanics Trust Bldg., Harrisburg, Pa.

AGENTS WANTED

Agents wanted to assist us in introducing this wonderful new milk cooling device. Effectively checks bacterial growth in milk right at the start. Prevents off flavors and souring. Keeps milk and cream sweet for several days.

Milcare
TRADE MARK

A new invention that cools and aerates milk and cream. Recognized by creameries and milk dealers.

Increases Profits—Stops Losses

Cooling and stirring your milk and cream is just as important in the cold weather as it is in the summer time. After you have placed your milk can in water cooler simply place Milcare over the can, give the handle a few turns and the slow motion propeller will stir up circulating currents that will expose the entire contents over and over again, to the cooling side of the can. Dairy profits go to shippers who take advantage of the modern methods and improved equipment. Sturdy construction. Simple to operate. Easy to keep clean. Sold under a guarantee. Quality cream brings increased returns. Machine will pay for itself in four to six weeks. Equip your milk house up to day with Milcare, the solution of milk and cream industries' greatest problems.



Winds like a clock. Spring motor runs 30 minutes. Round and round the propeller drives milk or cream cooling it constantly.

MILCARE CO.
FERGUS FALLS, MINN.

Uncle Ab says that he expects every body to be able to teach him something. No farm is well managed without some record of its business.

AT HARVEST TIME—If You Have Used Lime-Marl

YOU WILL HAVE CROPS OF BETTER QUALITY—BIGGER YIELDS PER ACRE—MORE MONEY FOR YOUR WORK—RICHER SOIL. The cost is small—the dividends are large. Use LIME-MARL this spring and be SURE of more profit. Write for prices and full information. Best time for sour soil.

NATURAL LIME-MARL CO. (2 Plants on B. & O. R. R.) ROANOKE, VA.

Report of the Field and Test Department Inter-State Milk Producers' Association

The following statistics show the average operations of all the Inter-State Milk Producers' Association field men in connection with testing, weighing and general membership work, for the month of December, 1929.

No. Tests Made	6405
No. Plants Investigated	53
No. Membership Calls	134
No. Calls on Members	277
No. New Members Signed	51
No. Cows Signed	393
No. Transfers Made	14
No. Meetings Attended	19
No. Attending Meetings	1253

Quarterly Meeting of Curryville Local

A quarterly meeting of the Curryville Local was held in Curryville on January 16th, with sixty-five members present. A soil testing demonstration was given by George Davis and Fred Dillings. "The Social Relation of the Dairyman," was the title of an address by Professor J. E. Butts, Principal M. C. V. H. S. A report of the annual meeting of the Association in Philadelphia, as well as present market conditions was made by various members. Entertainment was supplied by local talent.

Penna. Retains High Rank in Production Of Potatoes, Apples

Only one state produced a more valuable potato crop and only three states produced more valuable apple crops than did Pennsylvania in 1929, according to the Pennsylvania Department of Agriculture.

The potato crop, valued at \$41,184,000 is, with one exception, the most valuable crop of tubers ever produced in the Commonwealth. The tobacco crop promises to be the most valuable since 1923. The apple production, however, is, with four exceptions, the least valuable since annual estimates were begun in 1911. The oats crop is the lowest in value since 1921 and hay, the lowest since 1909.

Estimates on the production of the principal crops for 1929 show that Pennsylvania is still the leading producer of buckwheat and cigar-leaf tobacco.

The rank of Pennsylvania among all the States in 1929 production of various crops is as follows:

First in buckwheat; first in cigar-leaf tobacco; third in potatoes (second in value); fifth in grapes; sixth in total apple crop (fourth in value). Seventh in rye; seventh in all tobacco; ninth in winter wheat; tenth in tame hay; tenth in commercial apples; twelfth in pears; twelfth in peaches; fourteenth in oats; seventeenth in corn.

Always feed calves milk that is the same temperature from one feeding to another.

Eastern States Farmers' Exchange

A Big Little Thing

Field seeds are small—some of them tiny. Actual planting occupies a small portion of the spring work. The seed bill on most farms is a rather insignificant fraction of the total supply bill each year. From all these angles, field seed is a little thing. And yet, because of the place field seed plays in the development of profitable farming, field seed is a very big little thing.

The return from seed not only should show a profit over the cost of the seed itself, but also over the cost of fitting the field and harvesting the crop, the cost of the fertilizer, the rent on the land, etc. The losses sustained from disappointing yields due to inferior seed turn labor, fertilizer, and land rental costs into losses.

Experience and investigation have proved that many of the hazards which used to be considered inevitable in procuring seed can be eliminated to a remarkably high degree. By exercising proper care in selecting field seed, consumers—New England farmers—can control such factors as winter-hardiness in red clover, longevity in alfalfa, productivity in grains, reduction of disease in field peas, and practical freedom from weed seeds and inert matter. Individually, it is extremely difficult for farmers to do these things.

The cost is too great both in time and in financial outlay. Collectively, co-operating with their neighbors, the cost is low and insignificant in proportion to the benefit which consumers enjoy who plant only field seed properly selected to supply best their needs.

The seed department of the Eastern States Farmers' Exchange uses the information which state and federal agricultural agencies and other reliable sources are constantly developing. Its own personnel is composed of trained men able to interpret the needs of the membership and to see that those needs are satisfied. Its seed facilities at Buffalo are second to none and include adequate storage, cleaning, and testing equipment.

No step is neglected by the Eastern States Farmers' Exchange which knowledge indicates should be taken to obtain the right seed. More than 800 acres were used to grow on contract for 1930 planting the corn, oats, barley, and Eastern States field pea seed. The parent seed stock for these 800 acres was most carefully selected. The clover and alfalfa seed for 1930 planting is all being obtained from reliable sources in regions known to produce the seed eastern farmers should have.

The purchase of your field seeds for 1930 is a very big part of your 1930 farm program. Write for information on Eastern States seed and acquaint yourself with the care taken to protect the interests of consuming farmers by this organization operated by consuming farmers to provide themselves greatest possible returns from money invested in such supplies as seed, fertilizer and feed. Learn at what reasonable prices the seed so protected is distributed.

Eastern States Farmers' Exchange

A non-stock, non-profit organization, owned and controlled by the farmers it serves

Headquarters: Springfield, Massachusetts

Directors Meeting

(Continued from page 1)

Mr. Miller spent much of his early life on the farm of his uncle, Joseph Waddington, near Salem, N. J. He graduated as a metallurgical chemist from the University of Pennsylvania and spent about ten years in the practice of this profession. Later he became a resident editor for the Iron Age, an iron trade paper. Fifteen years later he began the active operation of a dairy farm in Cecil County, Md. He was secretary of the Middletown, Delaware, and the Cecilton, Md., Local Units of the Inter-State and in 1910 became editor of the Inter-State Milk Producers' Review. Later he also assumed the duties of Publicity Director for the Dairy Council.

In January, 1930, he was elected assistant secretary of the Inter-State Milk Producers' Association, Inc.

dent: Frederick Shangle, Vice President; Robert F. Brinton, Treasurer; F. M. Twining, Assistant Treasurer; I. R. Zollers, Assistant Secretary, and the following directors:—S. K. Andrews, J. H. Bennet, Ira J. Book, E. H. Donovan, E. Nelson James, J. W. Keith, S. Blaine Lehman, A. R. Marvel, I. V. Otto, J. A. Poorbaugh, C. F. Preston, Albert Sarig, John Carvel Sutton, C. C. Tallman, R. I. Tussey, Harry B. Stewart, S. U. Troutman, F. P. Willits and A. B. Waddington.

The minutes of the previous Director's Meeting were approved and the report of the treasurer was presented and approved.

A. R. Marvel, who represented the association at the annual meeting of the Maryland Farm Bureau in Baltimore, reported the presentation of medals on behalf of the "Inter-State" to the two boys winning first and second vocational standing in agriculture in that district.

A brief report on the Washington situation was made by F. P. Willits, who referred to the Federal Farm Loan Board which makes loans to individual farmers, and the new Federal Farm Board which makes loans to co-operatives.

The work of the Field and Test Department was reported by its director, F. M. Twining.

Dairy Council activities were described by C. I. Cohee, Secretary, with particular mention of the advertising being conducted in the Philadelphia newspapers. Further description of this advertising campaign is to be found elsewhere in the Review.

Market conditions were discussed by H. D. Allebach. This was followed by a discussion on the surplus of dairy products in the United States.

J. W. Keith and J. A. Poorbaugh, who attended the National Milk Producers' Cooperative Federation meeting at St. Paul, Minnesota, reported on that meeting.

An Executive meeting of the Inter-State Milk Producers' Association's Board of Directors followed. I. Ralph Zollers was elected Secretary to fill the vacancy created by the resignation of Robert W. Balderston, and A. A. Miller was elected assistant secretary.

Sinking Valley Local Meets

Seventy-five milk producers were present at the recent meeting of the Sinking Valley Local on January 28, held at Skelp, Sinking Valley. Charles Carper, President of the Local presided. A report on the annual meeting of the Association in Philadelphia was made by Walter Henderson. E. G. Hammel, County Agent, outlined the present surplus milk situation and stressed the need for farmers to use milk products rather than substitutes. R. I. Tussey, Director of the Inter-State Milk Producers' Association, made a request that all milk producers write to their senators regarding the tariff on casein, asking support of the Howell Bill for an eight cent duty on casein.

Feed Dairy Cow's Right

Milk production and dairy profits are always in close relationship with the kinds and amounts of feeds consumed by cows. Much feed and labor are wasted through wrong methods of feeding.

Farquhar Steam Boilers

of All Styles and Sizes for

all Purposes Where Steam is Used for

HEATING or POWER

Farquhar Line of Boilers includes a type or size for every purpose—Industrial, Laundries, Creameries, Dairy and Milk Plants, Mushroom Houses and all-around General Heating. These Boilers will furnish abundant steam and Hot Water. Burn Wood, Coal or Oil. Quick and Easy Steamers.

All Farquhar Boilers are built in strict accordance with the A. S. M. E. Specification. Thoroughly tested and can be shipped on quick order. Write for Bulletins stating type and size needed.

We also build Sawmills, Threshers, Hay Balers, Cider Presses, "Non-Wrap" Manure Spreaders, Interchangeable Grain Drills, and Farm Implements. Catalogs on request.

A. B. Farquhar Co., Limited

Box 461

YORK, PA.

Pennsylvania Farm Products Show

(Continued from page 1)

reminding his audience that twenty-five years ago there were no vocational schools, while now twenty-thousand boys and girls are studying agriculture. Many instances were cited of boys and girls project work, and Dean Watts predicted the training being given to the young farmers will result in a type of leadership ten years from now which will be far ahead of today.

Hon. John C. Ketchan, Congressman and former Master of Michigan State Grange, in an address, "What May We Expect the New Farm Board to do for Agriculture," warned against expecting everything at once from this great experiment.

"Legislature cannot settle all the farm problems," said Mr. Ketchan who declared that the problems was rather one of surpluses which the farmer had failed to consider and study. Over-production can be controlled only by the farmers themselves. Mr. Ketchan expressed the belief that there were many substantial aids which the Farm Board could render, because it combined brains, power and money.

Secretary C. G. Jordan, briefly promised the audience that the new Farm Products Show building would be completed by September of this year. The auditorium will seat 4,000 people, and will be the most ample building of its kind in America.

Group Meetings

At no previous time in the history of the Farm Products Show has the interest been as great as was displayed by the large attendance at meetings of the various agricultural organizations. At these different sessions various problems in connection with the production of a wide number of farm products were discussed by outstanding speakers.

Among the Prize Winners

The grand champion 4-H baby beef prize was awarded to Geo. Stock, Mechanicsburg.

Mary C. Werner, 13, of Bath, Northampton County, won the potato championship, not only in the boys' and girls' classes but for the entire potato show.

The first prize for raw market milk from tuberculin-tested cows went to Robert W. Eno, Honesdale.

Use an Extra "Pat" of Butter Says Mr. Munn

(Continued from page 2)

our health. All scientists agree that butter supplies in the most economical and palatable form of any food fats, the substances necessary for growth and health.

If each person in the United States would consume one more pat of butter each day for one month, this entire surplus of butter would disappear and a stabilized condition in the dairy industry would follow, or if each member of the rural communities of this country would consume each day one-half ounce more butter for the next two months it would likewise dispose of this surplus. This appeal is made to both the city and country alike, not alone in the interest of stabilized agriculture, but in the interest of general health and national security.

Don't forget there is no substitute for butter and dairy products.

Secretary Reed Advises Culling of Dairy Herds

(Continued from page 2)

"An important factor that influences the limit of profitable production is the quality of our dairy products. Quality has a definite relation to demand. The production of a clean, wholesome, safe supply of milk is very largely the problem of the producer. It has been estimated that every year approximately \$40,000,000 is lost to the dairy industry through low-grade milk and cream, and much of this loss is suffered by the farmer.

"The producer of dairy products should be interested in doing everything possible to insure the delivery of a good wholesome safe product to the consumer. In far too many cases the producer of market milk waits for the milk inspector to inform him how to produce clean milk. In many other cases the producer objects to certain rules that should be followed if clean milk is to be produced.

"The demand for dairy products will never reach its highest point until the product offered for sale is of the highest quality."

Rapid Progress In Bang Disease Control

Since the Pennsylvania plan for control of Bang Disease, commonly known as bovine infectious abortion, was adopted in 1920, blood testing—as an essential feature of the plan—has been done in 2,700 herds, according to a report from the Bureau of Animal Industry, Pennsylvania Department of Agriculture. Eight hundred and twenty-nine herds are now signed up under the Plan and 230 certificates for abortion-free herds have been issued.

The rapidly increasing interest among dairymen and breeders in the control of the Bang disease is indicated by the fact that blood testing is being done in more than three times as many herds today as early in 1928.

The Bang disease is known throughout the dairy world. The plan adopted in Pennsylvania, which is based upon the sanitary principles, repeated blood testing, and the elimination of reactors, was the first systematic effort for control and eradication to be made on a state-wide scale. The success of the method is indicated by the growth of the work. A number of other states as far west as the Pacific coast have adopted and are now following many or all of the important features of the Plan as used in Penna.

Money spent for fertilizer should be considered a business investment. Like other investments it should be made wisely.



Model Silos

For those who have to count every penny, as well as for those who can afford the best, there's one outstanding silo—the Unadilla.

Strong—well built, time-saving, silage-saving and money-saving, the Unadilla represents the best outlay you can make for farm buildings. Our catalog describes line fully. Discount for cash settlement. Time if wanted.

UNADILLA SILO COMPANY

Box D Unadilla, N. Y.

UNADILLA SILOS

Clip and Groom Your Cows During Stable Months

It Means CLEANER and BETTER MILK

Clipped and Groomed Cows are clean and comfortable and keep dirt out of the milk pail. Clipping and Grooming improve the health of your Live Stock. Gillette Portable Electric Clipping and Grooming Machines Operate on the Light Circuit furnished by any Electric Power Co., or on any make of Farm Lighting Plant. PRICE LIST ON REQUEST

GILLETTE CLIPPING MACHINE CO.

129 West 31st St., Dept. 14, New York, N. Y.

45 Years Making Reliable Clipping and Grooming Machines.

PAPER YOUR HOME for 90¢ PER ROOM

You can paper the average room with high-grade, artistic wall paper for as little as 90¢ per room by buying direct at lowest wholesale prices. Send for big free catalog. Not the usual small mail order catalog but large book showing scores of artistic designs for ceilings and borders as well as walls. Write today.

PENN WALL PAPER MILLS

Dept. A Philadelphia, Pa.

High Grade Dairy Cows

in HIGHTSTOWN, N. J.

We handle all kinds of cattle

Holsteins—Guernseys—Jerseys

A Specialty

All cows tuberculin tested and sold subject to a 60 or 90 day retest and fully guaranteed in every respect.

Free delivery any distance.

B. ZAITZ & SON

202 Mercer Street Hightstown, N. J.

Phone 72

Quietness and Convenience in Philadelphia's Newest Hotel

The Robert Morris

17th and ARCH STREETS
Rooms all outside and with bath. All beds equipped with box springs and Nachman inner hair spring mattresses.

RADIO IN EVERY ROOM

Single rooms... \$3.00 \$3.50 \$4.00

Doublers... 4.50 5.00 6.00

LUNCHEON .60 and .75

DINNER \$1.00, \$1.15, \$1.50

FOR SALE—"SELECT DAIRY ALFALFA" Clover, Timothy and Clover Mixed. Delivered prices quoted. Prompt shipment. JOHN DEVLIN HAY CO., 192 N. Clark Street, Chicago, Illinois.

This Free Book May Mean Prosperity for You:

Even if you have been in the dairy business for years you should have this book, "Successful Dairying." If you have just started to build up a herd you must not miss it. The information contained in any one chapter may start you on the road to dairy prosperity. Yet "Successful Dairying" is yours for the asking.



"Successful Dairying" is an entirely new handbook on dairying. It contains 36 pages, fully illustrated. It will be mailed absolutely free to anyone who will send in this ad.

The American Jersey Cattle Club

324-K West 23rd Street New York, N. Y.

SALESMEN WANTED

Salesmen for territories in Pennsylvania, New Jersey and Maryland. We have sold many thousands of farmers in Pennsylvania, particularly during the past 54 years. First grade goods only. Salesmen should be between ages of 30 and 50 and must have car in which to work territory. Preference will be given to man who has been successful as salesman or in his own business. This is good position which will pay you well. Write The Globe Refining Co., Cleveland, Ohio, at once, giving record of your employment or business during the past five years.



100 Real Dairy Cows 100

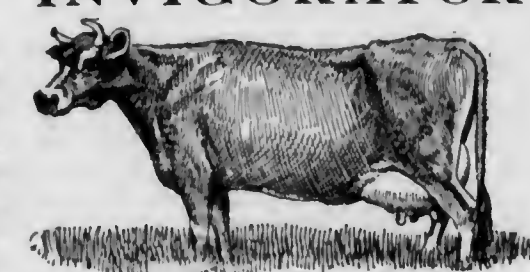
For sale at all times. Tuberculin tested Holsteins, Guernseys and Jerseys. Real Milk Producers. Carload lots a specialty. Priced to sell.

See or Write:

JACOB ZLOTKIN

Phone 330 FREEHOLD, N. J.

INVIGORATOR



Dr. Daniels' Cow Conditioner

THE NEW MINERAL TONIC

Less Weakness More Milk

Better Cows and More Profit

Prevent the run-down conditions of winter by giving this new MINERAL TONIC in the feed

HEALTH for Your Cow is the Secret of Profit

Send for Free Samples

and

DR. DANIELS' UDERKREAM

For Cow Bag and Teats

Dr. A. C. DANIELS, Inc.

172 MILK ST., BOSTON

Dairy and Poultry Feeds

That Produce Results
Farm Supplies of all kinds

Ask Us for Prices

Scheideler Bros.

LAWRENCE STA., N. J.

Phone Plainboro 593

Quicker, better milk can cleaning

MILK cans require thorough cleaning to prevent accumulation of dirt and casein in seams and corners. Use Oakite for milk-can cleaning and you will be certain that no trace of foreign matter remains to contaminate milk.

Ask our nearest Service Man for particulars on Oakite cleaning for this and every other dairy farm need. A postal to us will bring him. No obligation.

Oakite Service Men, Cleaning specialists are located in the leading industrial centers of U. S. and Canada.

Manufactured only by

OAKITE PRODUCTS, INC.
36 H Thames St., NEW YORK, N. Y.

OAKITE
Industrial Cleaning Materials and Methods

REGISTERED GUERNSEYS

Consisting of fresh cows, springers, bred and open heifers, bull and heifer calves, one show and breeding bull, four years old, good enough to head any herd, for \$350; three other young show bulls, priced from \$150 to \$350, worth double this price. Over 200 head to pick from. All accredited.

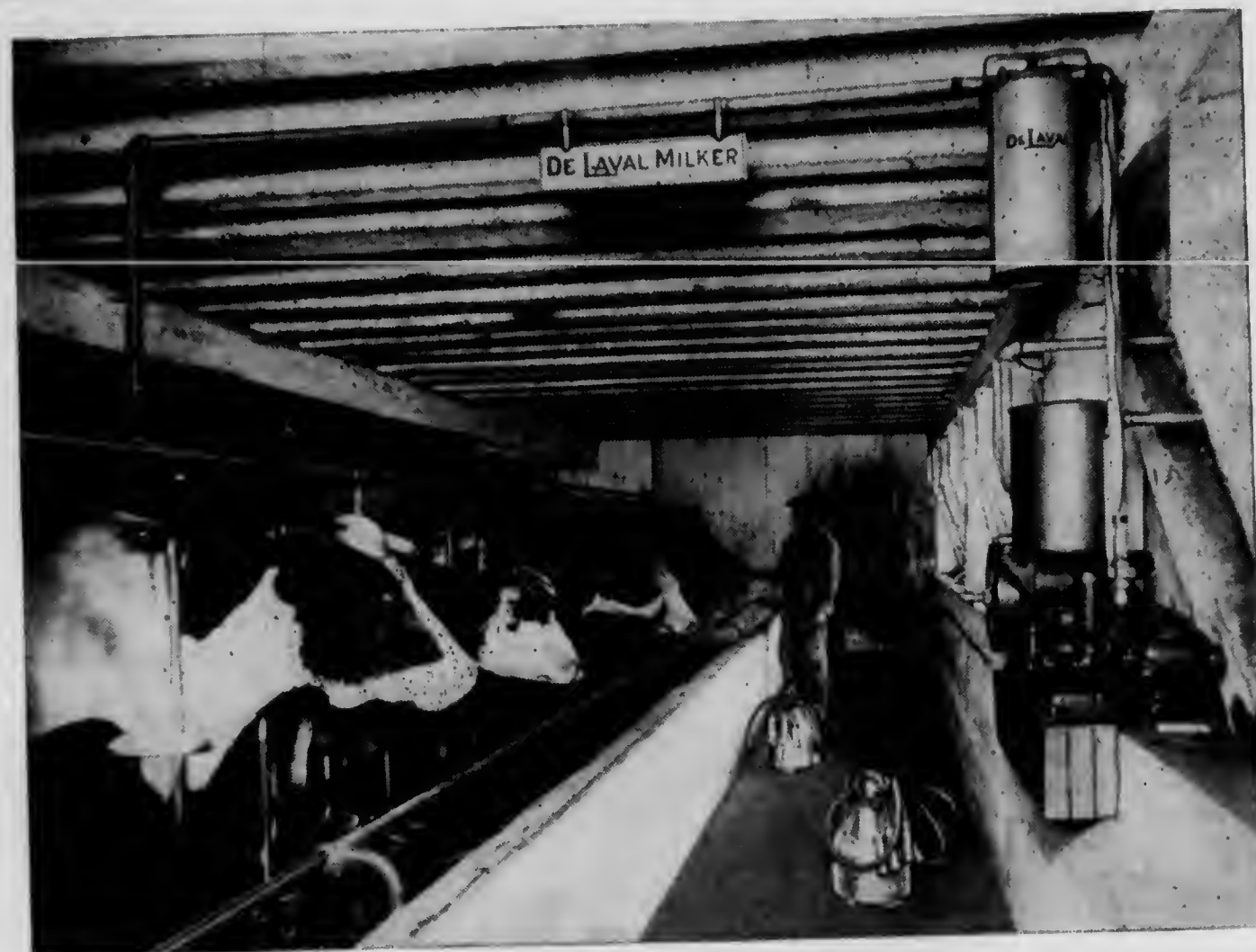
REGISTERED MILKING

Two complete herds of accredited Shorthorn bulls, young bulls, bull calves, cows, heifers, and heifer calves at low prices.

Several carloads of fancy high-grade Jersey cows, fresh and springers, T.B., and blood-tested of large size and sound at \$125 per head, delivered in the Eastern States; two carloads of registered Jersey cows, T.B. and blood-tested, 3/4 Island breeding, \$200 each; one carload of high-grade Jersey heifers, bred and open, \$70 each; twenty head of the best high-grade Guernseys in N. Y. State, fresh and nearly springers; one load of fancy high-grade 50 to 60 lb. Holstein cows, \$200 each; registered Holstein cows, \$225 each, heifers, \$150; Ayrshires at about the same prices, also holly, bull calves, heifer calves, of above breeds. Write me.

A Square Deal to All
LEWIS H. FURGASON
Windham, N. Y.

WE BUILD
Lime & Fertilizer Spreaders
Mash Feeders, Radio Stands
Two-Wheel Wheelbarrows for Boys
Send for Circular and Price
J. S. GREENLEAF, ANSON, ME.



This Champion Pennsylvania Herd Is Milked with the DE LAVAL MAGNETIC

THE purebred Holstein herd owned by Mr. H. A. Snyder, Montoursville, Pa., has established itself as a leading herd in its state and one of the leading herds in the country. It is the first herd in the Pennsylvania Cow Testing Association to have an average of 526.4 lbs. of fat and 14,283 lbs. of milk. It is also the first herd to be above the 500-lb. fat average for two successive years. It has led the White Deer Valley Cow Testing Association for three successive years. Many breeders purchase valuable individuals from the herd each year for the purpose of breeding into their own herds its splendid high-producing qualities.

Mr. Snyder uses the De Laval Magnetic Milker and he writes:

"Before installing the De Laval Magnetic Milker I made a careful investigation of several different types of milking machines. I believe that I made a wise choice, for the results obtained with the De Laval Magnetic have been very satisfactory."

No other method of milking cows offers the uniformity and regularity of action which is attained in the De Laval Magnetic by the use of magnetic force for the creation and control of pulsations. This desirable quality is an outstanding feature of the De Laval Magnetic Milker.

THE DE LAVAL SEPARATOR COMPANY
New York, N. Y., 165 Broadway
Chicago, Ill., 600 Jackson Blvd.
San Francisco, Cal., 61 Beale St.

Please send me information on the following De Laval products which I have checked:

- ☐ Magnetic Milker
- ☐ Utility Milker
- ☐ Utility Single Unit
- ☐ Utility Double Unit
- ☐ Alpha Dairy Power Plant
- ☐ Solution Rack
- ☐ Golden Series Separator
- ☐ Utility Series Separator
- ☐ Junior Series Separator
- ☐ Europa Series Separator
- ☐ De Laval Oil

I milk.....cows.

Name.....

P. O.....State.....

Send the
Coupon for
Complete
Information

DE LAVAL PRODUCTS



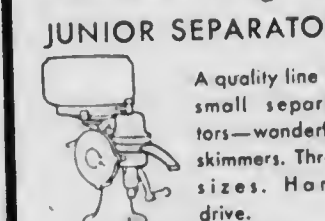
GOLDEN SERIES SEPARATOR

The world's best separator; skims cleaner, runs easier, lasts longer. Seven sizes. Hand, belt or electric drive.



UTILITY SEPARATOR

Just like the "Golden Series" except for several non-essential features. Sells for less. Three sizes; hand, belt or electric drive.



JUNIOR SEPARATOR

A quality line of small separators—wonderful skimmers. Three sizes. Hand drive.



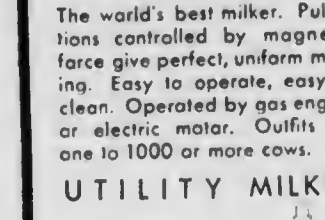
EUROPA SEPARATOR

A line of low priced Europeas, made De Laval Separators. Four sizes. Hand drive.



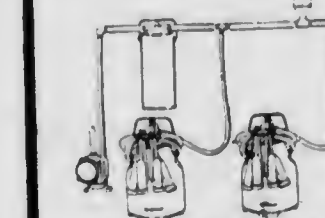
MAGNETIC MILKER

The world's best milker. Pulsations controlled by magnetic force give perfect, uniform milking. Easy to operate, easy to clean. Operated by gas engine or electric motor. Outfits for one to 1000 or more cows.



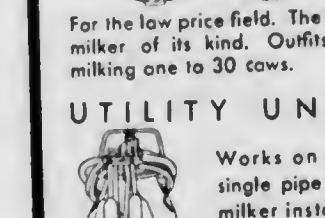
UTILITY MILKER

For the low price field. The best milker of its kind. Outfits for milking one to 30 cows.



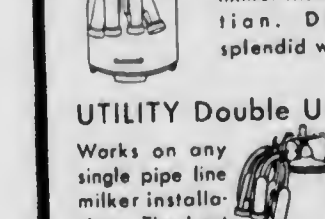
UTILITY UNIT

Works on any single pipe line milker installation. Does splendid work.



UTILITY Double UNIT

Works on any single pipe line milker installation. The best double unit made.



ALPHA DAIRY POWER PLANT

Built like an automobile engine. Provides economical power for milker and separator. Heats 4 1/2 gallons of water for cleaning.



SOLUTION RACK

Keeps milker teat-cups sterile between milkings. Solution used only once so it is always full strength.



DE LAVAL OIL

Makes separators run easier and last longer. Specially made. Two kinds—red label, hand separator oil; green label, milker pulso-pump oil.

INTER-STATE MILK PRODUCERS' ASSOCIATION
PHILADELPHIA PRICES in effect December 20, 1929
SPECIAL NOTICE TO BUYERS

Basic prices as of December 20, 1929
and until further notice.

Test Per Cent	Basic Quantity Per 100#	Price Per Quart	:
3.0	3.20	7.1	:
3.05	3.21	7.1	:
3.1	3.33	7.15	:
3.15	3.35	7.2	:
3.2	3.37	7.25	:
3.25	3.39	7.3	:
3.3	3.41	7.35	:
3.35	3.43	7.4	:
3.4	3.45	7.4	:
3.45	3.47	7.45	:
3.5	3.49	7.5	:
3.55	3.51	7.55	:
3.6	3.53	7.6	:
3.65	3.55	7.65	:
3.7	3.57	7.65	:
3.75	3.59	7.7	:
3.8	3.61	7.75	:
3.85	3.63	7.8	:
3.9	3.65	7.85	:
3.95	3.67	7.9	:
4.0	3.69	7.95	:
4.05	3.71	8.0	:
4.1	3.73	8.0	:
4.15	3.75	8.05	:
4.2	3.77	8.1	:
4.25	3.79	8.15	:
4.3	3.81	8.2	:
4.35	3.83	8.25	:
4.4	3.85	8.3	:
4.45	3.87	8.3	:
4.5	3.89	8.35	:
4.55	3.91	8.4	:
4.6	3.93	8.45	:
4.65	3.95	8.5	:
4.7	3.97	8.55	:
4.75	3.99	8.6	:
4.8	4.01	8.65	:
4.85	4.03	8.65	:
4.9	4.05	8.7	:
4.95	4.07	8.75	:
5.0	4.09	8.8	:

Due to the fact that the price of dairy products generally has been greatly reduced, it was found necessary, after a conference with the buyers, that the price of milk paid producers be reduced 25¢ per hundred lbs., effective December 20th, 1929.

The basic and surplus plan will continue unchanged.

By order of the Board of Directors.

Tenth Floor, Flint Bldg., H. K. Calkins, President
Philadelphia, Penna.
Issued December 17th, 1929 Secretary

INTER-STATE MILK PRODUCERS' ASSOCIATION
 RECEIVING STATION PRICES in effect December 20, 1929
 SPECIAL NOTICE TO BUYERS

Basic prices as of December 20, 1929
 and until further notice.

Miles	Basic quantity: freight rate	Price : 3% milk :
1 to 10 inc.	.283	\$2.73 :
11 to 20 "	.283	2.77 :
21 to 30 "	.303	2.75 :
31 to 40 "	.313	2.74 :
41 to 50 "	.323	2.72 :
51 to 60 "	.343	2.71 :
61 to 70 "	.364	2.60 :
71 to 80 "	.374	2.68 :
81 to 90 "	.369	2.67 :
91 to 100 "	.399	2.66 :
101 to 110 "	.414	2.64 :
111 to 120 "	.424	2.63 :
121 to 130 "	.434	2.62 :
131 to 140 "	.450	2.61 :
141 to 150 "	.460	2.60 :
151 to 160 "	.475	2.58 :
161 to 170 "	.480	2.58 :
171 to 180 "	.490	2.57 :
181 to 190 "	.505	2.55 :
191 to 200 "	.515	2.55 :
201 to 210 "	.520	2.54 :
211 to 220 "	.535	2.52 :
221 to 230 "	.540	2.52 :
231 to 240 "	.550	2.51 :
241 to 250 "	.556	2.50 :
251 to 260 "	.566	2.49 :
261 to 270 "	.576	2.48 :
271 to 280 "	.581	2.47 :
281 to 290 "	.596	2.46 :
291 to 300 "	.600	2.46 :

Due to the fact that the price of dairy products generally has been greatly reduced, it was found necessary, after a conference with the buyers, that the price of milk paid producers be reduced 25¢ per hundred lbs., effective December 20th, 1929.

The basic and surplus plan will continue unchanged.

By order of the Board of Directors

Tenth Floor, Flint Bldg.,
 Philadelphia, Penna.
 Issued December 17th, 1929

H. E. Goldbach (H. E. Goldbach)

President

Secretary

INTER-STATE MILK PRODUCERS' ASSOCIATION
 PHILADELPHIA PRICES in effect December 1st, 1929.

Subject to change whenever warranted by market conditions.

These quotations are based on 3% butterfat and a differential of 4 cents for each tenth point and 2 cents for each half tenth point up or down.

This price list is issued with the understanding that it is not to producers and that all buyers using it as a basis of payment to producers shall in addition thereto make the following contributions and payments.

(1) To the Philadelphia Inter-State Dairy Council 2¢ per hundred pounds (46½ quarts) of all milk bought from any producer at price listed herein.

(2) To the Inter-State Milk Producers' Association 2¢ per hundred pounds (46½ quarts) of all milk bought from members of said association.

(3) To the Philadelphia Inter-State Dairy Council 2¢ per hundred pounds (46½ quarts) of all milk bought from other producers at price listed herein.

The funds so derived are to be used by the recipients for improving standards of quality in production and distribution of milk in the Philadelphia Milk Shed; for improvement and stabilization of markets and for an educational campaign advertising the food value of dairy products.

Basic price December 1st			November surplus price.	
Test per cent.	Basic Quantity Per 100	Price Per qt.	Class 1 Per 100	Class 2 Per qt.
3.0	3.54	7.6	32.25	4.75
3.05	3.56	7.65	2.22	4.75
3.1	3.58	7.7	2.24	4.8
3.15	3.60	7.75	2.26	4.85
3.2	3.62	7.8	2.28	4.9
3.25	3.64	7.8	2.30	4.95
3.3	3.66	7.85	2.32	5.
3.35	3.68	7.9	2.34	5.05
3.4	3.70	7.95	2.36	5.05
3.45	3.72	8.	2.38	5.1
3.5	3.74	8.05	2.40	5.15
3.55	3.76	8.1	2.42	5.2
3.6	3.78	8.1	2.44	5.25
3.65	3.80	8.15	2.46	5.3
3.7	3.82	8.2	2.48	5.35
3.75	3.84	8.25	2.50	5.4
3.8	3.86	8.3	2.52	5.4
3.85	3.88	8.35	2.54	5.45
3.9	3.90	8.4	2.56	5.5
3.95	3.92	8.4	2.58	5.55
4.	3.94	8.45	2.60	5.6
4.05	3.96	8.5	2.62	5.65
4.1	3.98	8.55	2.64	5.7
4.15	4.00	8.6	2.66	5.7
4.2	4.02	8.65	2.68	5.75
4.25	4.04	8.7	2.70	5.8
4.3	4.06	8.7	2.72	5.85
4.35	4.08	8.75	2.74	5.9
4.4	4.10	8.8	2.76	5.95
4.45	4.12	8.85	2.78	6.
4.5	4.14	8.9	2.80	6.
4.55	4.16	8.95	2.82	6.05
4.6	4.18	9.	2.84	6.1
4.65	4.20	9.05	2.86	6.15
4.7	4.22	9.05	2.88	6.2
4.75	4.24	9.1	2.90	6.25
4.8	4.26	9.15	2.92	6.3
4.85	4.28	9.2	2.94	6.3
4.9	4.30	9.25	2.96	6.35
4.95	4.32	9.3	2.98	6.4
5.	4.34	9.35	3.00	6.45

By order of the Board of Directors

Tenth Floor, Flint Bldg.,
 Philadelphia, Pa.
 Issued November 20th, 1929.

H. E. Goldbach (H. E. Goldbach)

President

Secretary

BY ORDER OF THE BOARD OF DIRECTORS		DATE		PRICE		QUANTITY		CLASS	
2.43	4.9	2.43	4.9	2.43	4.9	2.43	4.9	2.43	4.9
2.41	4.9	2.41	4.9	2.41	4.9	2.41	4.9	2.41	4.9
2.39	4.9	2.39	4.9	2.39	4.9	2.39	4.9	2.39	4.9
2.37	4.9	2.37	4.9	2.37	4.9	2.37	4.9	2.37	4.9
2.35	4.9	2.35	4.9	2.35	4.9	2.35	4.9	2.35	4.9
2.33	4.9	2.33	4.9	2.33	4.9	2.33	4.9	2.33	4.9
2.31	4.9	2.31	4.9	2.31	4.9	2.31	4.9	2.31	4.9
2.29	4.9	2.29	4.9	2.29	4.9	2.29	4.9	2.29	4.9
2.27	4.9	2.27	4.9	2.27	4.9	2.27	4.9	2.27	4.9
2.25	4.9	2.25	4.9	2.25	4.9	2.25	4.9	2.25	4.9
2.23	4.9	2.23	4.9	2.23	4.9	2.23	4.9	2.23	4.9
2.21	4.9	2.21	4.9	2.21	4.9	2.21	4.9	2.21	4.9
2.19	4.9	2.19	4.9	2.19	4.9	2.19	4.9	2.19	4.9
2.17	4.9	2.17	4.9	2.17	4.9	2.17	4.9	2.17	4.9
2.15	4.9	2.15	4.9	2.15	4.9	2.15	4.9	2.15	4.9
2.13	4.9	2.13	4.9	2.13	4.9	2.13	4.9	2.13	4.9
2.11	4.9	2.11	4.9	2.11	4.9	2.11	4.9	2.11	4.9
2.09	4.9	2.09	4.9	2.09	4.9	2.09	4.9	2.09	4.9
2.07	4.9	2.07	4.9	2.07	4.9	2.07	4.9	2.07	4.9
2.05	4.9	2.05	4.9	2.05	4.9	2.05	4.9	2.05	4.9
2.03	4.9	2.03	4.9	2.03	4.9	2.03	4.9	2.03	4.9
2.01	4.9	2.01	4.9	2.01	4.9	2.01	4.9	2.01	4.9
1.99	4.9	1.99	4.9	1.99	4.9	1.99	4.9	1.99	4.9
1.97	4.9	1.97	4.9	1.97	4.9	1.97	4.9	1.97	4.9
1.95	4.9	1.95	4.9	1.95	4.9	1.95	4.9	1.95	4.9
1.93	4.9	1.93	4.9	1.93	4.9	1.93	4.9	1.93	4.9
1.91	4.9	1.91	4.9	1.91	4.9	1.91	4.9	1.91	4.9
1.89	4.9	1.89	4.9	1.89	4.9	1.89	4.9	1.89	4.9
1.87	4.9	1.87	4.9	1.87	4.9	1.87	4.9	1.87	4.9
1.85	4.9	1.85	4.9	1.85	4.9	1.85	4.9	1.85	4.9
1.83	4.9	1.83	4.9	1.83	4.9	1.83	4.9	1.83	4.9
1.81	4.9	1.81	4.9	1.81	4.9	1.81	4.9	1.81	4.9
1.79	4.9	1.79	4.9	1.79	4.9	1.79	4.9	1.79	4.9
1.77	4.9	1.77	4.9	1.77	4.9	1.77	4.9	1.77	4.9
1.75	4.9	1.75	4.9	1.75	4.9	1.75	4.9	1.75	4.9
1.73	4.9	1.73	4.9	1.73	4.9	1.73	4.9	1.73	4.9
1.71	4.9	1.71	4.9	1.71	4.9	1.71	4.9	1.71	4.9
1.69	4.9	1.69	4.9	1.69	4.9	1.69	4.9	1.69	4.9
1.67	4.9	1.67	4.9	1.67	4.9	1.67	4.9	1.67	4.9
1.65	4.9	1.65	4.9	1.65	4.9	1.65	4.9	1.65	4.9
1.63	4.9	1.63	4.9	1.63	4.9	1.63	4.9	1.63	4.9
1.61	4.9	1.61	4.9	1.61	4.9	1.61	4.9	1.61	4.9
1.59	4.9	1.59	4.9	1.59	4.9	1.59	4.9	1.59	4.9
1.57	4.9	1.57	4.9	1.57	4.9	1.57	4.9	1.57	4.9
1.55	4.9	1.55	4.9	1.55	4.9	1.55	4.9	1.55	4.9
1.53	4.9	1.53	4.9	1.53	4.9	1.53	4.9	1.53	4.9
1.51	4.9	1.51	4.9	1.51	4.9	1.51	4.9	1.51	4.9
1.49	4.9	1.49	4.9	1.49	4.9	1.49	4.9	1.49	4.9
1.47	4.9	1.47	4.9	1.47	4.9	1.47	4.9	1.47	4.9
1.45	4.9	1.45	4.9	1.45	4.9	1.45	4.9	1.45	4.9
1.43	4.9	1.43	4.9	1.43	4.9	1.43	4.9	1.43	4.9
1.41	4.9	1.41	4.9	1.41	4.9	1.41	4.9	1.41	4.9
1.39	4.9	1.39	4.9	1.39	4.9	1.39	4.9	1.39	4.9
1.37	4.9	1.37	4.9	1.37	4.9	1.37	4.9	1.37	4.9
1.35	4.9	1.35	4.9	1.35	4.9	1.35	4.9	1.35	4.9
1.33	4.9	1.33	4.9	1.33	4.9	1.33	4.9	1.33	4.9
1.31	4.9	1.31	4.9	1.31	4.9	1.31	4.9	1.31	4.9
1.29	4.9	1.29	4.9	1.29	4.9	1.29	4.9	1.29	4.9
1.27	4.9	1.27	4.9	1.27	4.9	1.27	4.9	1.27	4.9
1.25	4.9	1.25	4.9	1.25	4.9	1.25	4.9	1.25	4.9
1.23	4.9	1.23	4.9	1.23	4.9	1.23	4.9	1.23	4.9
1.21	4.9	1.21	4.9	1.21	4.9	1.21	4.9	1.21	4.9
1.19	4.9	1.19	4.9	1.19	4.9	1.19	4.9	1.19	4.9
1.17	4.9	1.17	4.9	1.17	4.9	1.17	4.9	1.17	4.9
1.15	4.9	1.15	4.9	1.15	4.9	1.15	4.9	1.15	4.9
1.13	4.9	1.13	4.9	1.13	4.9	1.13	4.9	1.13	4.9
1.11	4.9	1.11	4.9	1.11	4.9	1.11	4.9	1.11	4.9
1.09	4.9	1.09	4.9	1.09	4.9	1.09	4.9	1.09	4.9
1.07	4.9	1.07	4.9	1.07	4.9	1.07	4.9	1.07	4.9
1.05	4.9	1.05	4.9	1.05	4.9	1.05	4.9	1.05	4.9
1.03	4.9	1.03	4.9	1.03	4.9	1.03	4.9	1.03	4.9
1.01	4.9	1.01	4.9	1.01	4.9	1.01	4.9	1.01	4.9
0.99	4.9	0.99	4.9	0.99	4.9	0.99	4.9	0.99	4.9
0.97	4.9	0.97	4.9	0.97	4.9	0.97	4.9	0.97	4.9
0.95	4.9	0.95	4.9	0.95	4.9	0.95	4.9	0.95	4.9
0.93	4.9	0.93	4.9	0.93	4.9	0.93	4.9	0.93	4.9
0.91	4.9	0.91	4.9	0.91	4.9	0.91	4.9	0.91	4.9
0.89	4.9	0.89	4.9	0.89	4.9	0.89	4.9	0.89	4.9
0.87	4.9	0.87	4.9	0.87	4.9	0.87	4.9	0.87	4.9
0.85	4.9	0.85	4.9	0.85	4.9	0.85	4.9	0.85	4.9
0.83	4.9	0.83	4.9	0.83	4.9	0.83	4.9	0.83	4.9
0.81	4.9	0.81	4.9	0.81	4.9	0.81	4.9	0.81	4.9
0.79	4.9	0.79	4.9	0.79	4.9	0.79	4.9	0.79	4.9
0.77	4.9	0.77	4.9	0.77	4.9	0.77	4.9	0.77	4.9
0.75	4.9	0.75	4.9	0.75	4.9	0.75	4.9	0.75	4.9
0.73	4.9	0.73	4.9	0.73	4.9	0.73	4.9	0.73	4.9
0.71	4.9	0.71	4.9	0.71	4.9	0.71	4.9	0.71	4.9
0.69	4.9	0.69	4.9	0.69	4.9	0.69	4.9	0.69	4.9
0.67	4.9	0.67	4.9	0.67	4.9	0.67	4.9	0.67	4.9
0.65	4.9	0.65	4.9	0.65	4.9	0.65	4.9	0.65	4.9
0.63	4.9	0.63	4.9	0.63	4.9	0.63	4.9	0.63	4.9
0.61	4.9	0.61	4.9	0.61	4.9	0.61	4.9	0.61	4.9
0.59	4.9	0.59	4.9	0.59	4.9	0.59	4.9	0.59	4.9
0.57	4.9	0.57	4.9	0.57	4.9	0.57	4.9	0.57	4.9
0.55	4.9	0.55	4.9	0.55	4.9	0.55	4.9	0.55	4.9
0.53	4.9	0.53	4.9	0.53	4.9	0.53	4.9	0.53	4.9
0.51	4.9	0.51	4.9	0.51	4.9	0.51	4.9	0.51	4.9
0.49	4.9	0.49	4.9	0.49	4.9	0.49	4.9	0.49	4.9
0.47	4.9	0.47	4.9	0.47	4.9	0.47	4.9	0.47	4.9
0.45	4.9	0.45	4.9	0.45	4.9	0.45	4.9	0.45	4.9
0.43	4.9	0.43	4.9	0.43	4.9	0.43	4.9	0.43	4.9
0.41	4.9	0.41	4.9	0.41	4.9	0.41	4.9	0.41	4.9
0.39	4.9	0.39	4.9	0.39	4.9	0.39	4.9	0.39	4.9
0.37	4.9	0.37	4.9	0.37	4.9	0.37	4.9	0.37	4.9
0.35	4.9	0.35	4.9	0.35	4.9	0.35	4.9	0.35	4.9
0.33	4.9	0.33	4.9	0.33	4.9	0.33	4.9	0.33	4.9
0.31	4.9	0.31	4.9	0.31	4.9	0.31	4.9	0.31	4.9
0.29	4.9	0.29	4.9	0.29	4.9	0.29	4.9	0.29	4.9
0.27	4.9	0.27	4.9	0.27	4.9	0.27	4.9	0.27	4.9
0.25	4.9	0.25	4.9	0.25	4.9	0.25	4.9	0.25	4.9
0.23	4.9	0.23	4.9	0.23	4.9	0.23	4.9	0.23	4.9
0.21	4.9	0.21	4.9	0.21	4.9	0.21	4.9	0.21	4.9
0.19	4.9	0.19	4.9	0.19	4.9	0.19	4.9	0.19	4.9
0.17	4.9	0.17	4.9	0.17	4.9	0.17	4.9	0.17	4.9
0.15	4.9	0.15	4.9	0.15	4.9	0.15	4.9	0.15	4.9
0.13	4.9	0.13	4.9	0.13	4.9	0.13	4.9	0.13	4.9
0.11	4.9	0.11	4.9	0.11	4.9	0.11	4.9	0.11	4.9
0.09	4.9	0.09	4.9	0.09	4.9	0.09	4.9	0.09	4.9
0.07	4.9	0.07	4.9	0.07	4.9	0.07	4.9	0.07	4.9
0.05	4.9	0.05	4.9	0.05	4.9	0.05	4.9	0.05	4.9
0.03	4.9	0.03	4.9	0.03	4.9	0.03	4.9	0.03	4.9
0.01	4.9	0.01	4.9	0.01	4.9	0.01	4.9	0.01	4.9
0.00	4.9	0.00	4.9	0.00	4.9	0.00	4.9	0.00	4.9

Milk Producers

ISSUED MONTHLY IN THE INTEREST OF THE DAIRY FARMER BY THE INTER-S

Vol. X West Chester, Pa., and Philadelphia, Pa., Mar

Bad Flavor in Your Milk and Cream

In the past city consumers of milk have always judged the quality of milk by the amount of butterfat it contained. The milk distributor has proudly displayed the "cream line" on the bottle of his product. However, at the present time these same consumers are coming more and more to realize that milk is judged very largely by the tongue and nose of those that drink this health food. In the survey on milk consumption conducted last summer in Philadelphia, the vast majority of housewives replied that they and their families drank milk because they liked its taste rather than because it was a health food or because it was a cheap food.

The milk producers should learn a vital lesson from this fact,—if we wish to increase consumption of our product we must improve its flavor and odor. While the loss to producers of milk that is returned due to bad flavors and odors is not as great as several years ago, that loss still amounts to thousands of dollars every year. The season of garlicky milk, grassy milk and milk of bad odor is again here and it is very necessary that every dairyman use great care in his methods. Cows should not be turned on pastures until the grass has a good start then only a few hours a day at first and be removed five or six hours before milking time. Many dairymen in sections where garlic grows very rank, who follow this system never lose a can of milk. The pasturing of early wheat or rye must also be watched carefully as these feeds produce a bad odor in the milk.

Of course, this early pasturing problem is caused by a lack of winter feed or by trying to keep too many cows for the amount of feed on hand. There never was a better time than now to butcher the poor producing cows. Now is also the time to plan for raising more feed for next winter. Leguminous hays, corn silage, corn, oats and barley should be the basis of the winter dairy rations.

Much milk being received at this time of the year is of poor quality because of lack of proper cooling on the farm. During the winter months many producers become careless in their methods of cooling milk and with the coming of warmer weather trouble is in store for them. Milk should be cooled in water at once after milking, winter and summer regardless of atmospheric temperatures. Cooling milk in water should be a daily routine on every dairy farm. If this plan of caring for milk is carried out as carefully during the winter as during "dog days" much milk of poor odor will be eliminated from our markets.

Better Cream

Cream that becomes bitter in two or three days after separation has been giving much trouble at several receiving stations in the Philadelphia Milk Shed. This product is unsalable. This trouble has previously occurred at the same stations at the same time of year. It has been proven that a "stripper" cow or a cow with an infection of the udder will cause this condition. This organism is very hard to kill. This makes it necessary that all milk utensils be washed properly and sterilized in boiling, not just hot water. Due to the fact that this trouble always occurs at the time of year

(Continued on page 13)

BUTTER
And We Mean Butter
IS REAL ECONOMY

IT GIVES YOU THE MOST FOR YOUR MONEY

REAL BUTTER IS CHEAP AND
THERE IS NOTHING THAT
WILL TAKE ITS PLACE

BUTTER—Builds Health Reserve
BUTTER—Promotes Growth
BUTTER—An Excellent Energy Food

WHEN YOU BUY BUTTER YOU INVEST IN—

The most palatable fat (it makes food taste better).

The only generous supply of vitamins in any food fat.

A fat that is most efficient combined in
any meal every day.

EVERY FARMER SHOULD USE ONLY
REAL BUTTER AND PLENTY OF IT

BUY IT—USE IT

COOPERATE IN HELPING TO CONSUME THE
PRESENT HEAVY BUTTER SUPPLY AND
INCIDENTALLY HELP TO STABILIZE THE
MARKET FOR DAIRY PRODUCTS.

Farm Study Indicates Productive Basis

The Quality Control Department of the Dairy Council in making inspections of farms supplying the Philadelphia dealers with milk, in addition to recording the sanitary conditions, constantly record an inventory of the dairy cattle found on the many farms shipping milk to those dealers. The form which the inspector fills out requires that he record the total number of cows, the number of cows being milked, and the heifer calves being raised together with breed of sire found on the farm and a record of the breed of cows owned by the dairyman. This information gathered constantly throughout the year is of tremendous value because it indicates clearly the trend of production on the part of the dairyman. When used in conjunction with the volume of milk sold by each dairyman, data of great importance to the entire industry is formulated.

The Quality Control Department has just completed the records of 1929 and has tabulated the report covering the estimated amount of milk produced for consumption in Philadelphia. The dealers in Philadelphia purchased the supply of 14,455 farms in 1929 as compared with 14,322 farms in 1928. This indicates very clearly that there has been no great expansion of territory on the part of the dealers.

The 14,455 farms had a total of 136,616 dairy cows or an average of 9.49 cows per farm, as against 135,121 cows in 1928 or an average of 9.4 cows per farm. It is evident from this that the increase in the total number of cows has not been great. However, the cows have milked better in 1929 than they did in 1928 as evidenced by the fact that 690,786,164 pounds of milk were produced in 1929 as against 671,133,856 pounds in 1928. From this it is evident that there has been a substantial increase in the amount of milk delivered to these dealers. This increase has come about in several ways—first, by a slight increase in the number of cows being milked; second, by milking the cows for a longer lactation period; and third, by a slight increase in the sale of milk per cow. The sale of milk per cow in 1929 was 5,056 pounds against 4,967 pounds in 1928. A factor that was of importance and interest in the 1928 summary was the large number of heifer calves being raised on the farms with the evident intention of being added to the dairy herds. The record in 1928 showed 46,351 heifer calves or a ratio of one heifer for every 2.9 milking cows on the farm. It was thought a year ago that this indicated clearly an increase in the production during the year of 1929. The present summary indicates that the number of heifer calves has increased. There being now 49,496 heifers on the farms supplying milk to the Philadelphia buyers. This is a ratio of one heifer to every 2.76 milking cows. A study of the data indicates that heifer calves are being raised very largely in those districts that have for several years been tested for tuberculosis. In many counties it is found that heifer calves are being raised at the rate of one heifer calf to every 2.2 milking cows, whereas in other districts only one heifer

(Continued on page 13)

Agri. Economics & Farm Management
Cornell University, Ithaca, N. Y.

A Study of the New Pennsylvania Milk Code

By C. I. COHEE

Eight years ago when the Inter-State Milk Producers' Association fully realized the importance of improving the quality of milk as a means of inducing consumers to use in it larger quantities, they established through the Quality Control Department of the Philadelphia Inter-State Dairy Council a program of milk improvement so broad in its scope and so thorough in its application as to attract wide attention of all portions of the United States. They were pioneers in this field of milk improvement work in the Philadelphia market. While there were many cities and towns throughout Pennsylvania that were effectively carrying on programs of milk improvement, there was no general code in effect throughout the State to safeguard public health through the improvement of the milk supply.

That the action of the Producers' Association has been fully justified is demonstrated by the fact that today the State of Pennsylvania has a milk code based very largely on the experience obtained through the work of the Dairy Council. The last session of the Pennsylvania Legislature passed a law entitled "An Act to safeguard human health and life by providing for the licensing and regulation of the persons and entities dealing in milk for human consumption; conferring powers and imposing duties on the Secretary of Health, and the Advisory Health Board, and otherwise providing for the administration of the act; and imposing penalties."

Under the regulations of the Board of Health this new law provides for the establishment of a system of control of

the sanitary aspects of the milk supply for the people of Pennsylvania. A great many dairymen have been alarmed because of the passage of this and other laws affecting the sale of milk. There is, however, no cause for uneasiness in the enforcement of the State Code on the part of dairymen who have fully met the requirements of the Philadelphia Inter-State Dairy Council. The Quality Control Department of the Dairy Council has changed its requirements slightly to meet the provisions of the State Code and will continue to enforce its own provisions, that are not included in the new State Code.

The requirements for dairymen selling market milk to pasteurizing dealers, for sale in Philadelphia are briefly as follows:

All cows must be tuberculin tested in accordance with Federal and State regulations. (This requirement of the Philadelphia Department of Public Health becomes effective May 1st, 1930.)

Cows must be housed in clean barns having a reasonable amount of light, the cow stables constructed so as to be capable of being kept clean, (which means that the floors should be of concrete and a gutter should be provided back of the cows which is at least six inches in depth, which should also be constructed of concrete). Ceilings over the cows must be tight (that is, they must be constructed of tongued and grooved boards or straight edge boards, placed close together.)

The cows must be kept clean and free from accumulation of dirt and filth.

The stables must be cleaned out at least

once a day and the manure disposed of in such a manner as not to contaminate the cows, nor to interfere with the light and ventilation or to affect seriously the air in the barns.

Milking must be done in a cleanly manner and the milk carried promptly to a milk house for straining and cooling, except that it is permissible to strain the milk in to the can in the barn, providing the straining is done in a clean place, with a strainer which must have a metal cover.

Every farm must have a milk house, no less than 6 x 8 feet in dimension, located in such a manner that it shall not communicate directly with the stables, nor be located in the barnyard. The milk house must have concrete floors and a concrete cooling tank at least 22" in width. It must be at least 20" in length for every 40 quart can of milk it shall contain, except that where water is constantly flowing through the tank, or, where ice or refrigeration units are used as a means of cooling, a smaller tank may be used. The milk house must contain a rack made of metal for the storage of cans and utensils. All pails and utensils must be of bright block tin, free from rust and dents. Fine wire strainers are objectionable and single service filter cloths or cotton discs are recommended for straining the milk. An ample supply of water must be provided at the milk house for cooling milk. The milk house must be screened against flies. Utensils must be washed thoroughly with hot water and scalded before each using.

Farm toilets must be constructed with tight vaults and must be protected against the entrance of flies.

The milk, upon delivery to a receiving station or dealers' plant must be reasonably free from sediment, as indicated by the sediment test and must be of such a bacteria count as to indicate its suitability for pasteurization purposes.

A careful study of the State Code requirements will indicate that they very closely approximate the requirements of the Philadelphia Inter-State Dairy Council with the exception of a more strict enforcement of the location and the minimum size of the milk house and the requirements for metal can racks. The provision that the milk house must not communicate directly with the stables or be located in the barnyard affects a great many dairymen who have located their milk houses at an unfortunate point. The Dairy Council has from the beginning, however, urged the location of milk houses in such a manner as would now meet the requirements of the State Code, had their recommendations been followed.

The requirements of the State Code are very explicit in dealing with the operation of the receiving stations and the dealers' plants, requiring among other things, that milk containers should be thoroughly washed before returning them to the dairy farmer.

There are also direct requirements regarding the pasteurization temperature and means of recording the temperature at which the milk is pasteurized.

The World's Greatest Combination Food and Lubricant—Butter

Extracts From Talk Given by Professor H. A. Bendixen, Associate Professor of Dairy Manufactures
State College of Washington

Many people do not appreciate butter as they should.

It's presence or absence makes a great deal of difference to the eater. The human body is the greatest piece of machinery in the world and in order to perform smoothly, it must be carefully lubricated just like a smooth-running automobile. Eating is the one operation performed by all of us on the average of at least three times a day and some of us have to refuel five times daily. Now in such large-scale operations, lubrication is no mean item, no matter how inconspicuous the lubricant may be, and there is a great difference between lubricants. We specify paraffine base or other types of oil for our motors, why not specify for our own health vitamin base lubricants, which are being recommended by all food scientists. Nothing better has yet been found to keep our bearings from burning out than good creamery butter and it may rightfully be termed the world's finest

lubricant for human use. In ancient times, butter was used externally as well as internally. It served as an ointment for skin beautification, as hair tonic and as protection against cold. The extent of its ownership was often a measure of human wealth and it was in some cases held in such high esteem as to be used as sacrificial offerings to the Gods. Today, we have learned more about the underlying factors which make dairy products the God-given food which they have proven to be ever since ancient times and we know that its ample internal use will bring about all of the wonders of health and beauty which man has sought for all through the ages.

Butter is a lubricant, but it is also a high test fuel at the same time, a real, indispensable food. No substance yields more calories per pound than fat and no fat is more easily and more completely digested by the human body than butterfat. It is also one of the principal sources of the fat soluble vitamin A, without which none

of us can live or grow for any length of time. Vegetable fats do not contain this vitamin to any extent. The first result of a lack of this vitamin in our diet is the appearance of an eye disease. Not so long ago an epidemic of this eye disease occurred among infants in Copenhagen, and some instances of permanent blindness resulted before the disease was checked. The cause of the epidemic was found in the fact that some mothers wanting to economize, fed skim milk instead of whole milk to their children. Addition of a little butterfat to the diet was found to cure the disease. Children, therefore, should not be allowed to go without milk and butter, and to economize on these items, using substitutes, is no saving.

But besides being a lubricant and a most excellent food, butter is also a seasoning agent of the highest order, making very often the difference between a palatable and an unrelished meal, although many housewives do not know it. As a matter of fact, it is good butter that makes

us kind of glad to have hot muffins once in a while, while lack of butter or poor butter often is to blame when mother calls the whole family a bunch of dyspeptics.

Judging butter and other dairy products might well be taught much more generally in our school today, especially in the agricultural colleges and in the high schools. Such training would greatly increase the consumption of good butter, and substitutes would find few responsive customers. Whoever learned the thrill and enjoyment of hot biscuits spread with fine butter will never do without butter nor use a substitute. Let's cultivate greater food enjoyment.

With the low price of butter as it exists today, certainly it should be possible to point out to the consumer the error of his ways and to greatly increase our former annual per capita consumption which is about 17 pounds as compared with Canada's 27 pounds and California's 22 pounds. So all together now: Let's lubricate, with vitamin base butter.

Plowing in Green Manure Multiplies Soil Bacteria

When a farmer plows under a green manure crop such as clover or any of the legumes he brings about almost unbelievable changes in the world of living things under the soil, according to Nathan R. Smith, bacteriologist of the United States Department of Agriculture.

Under favorable conditions plowing under a large amount of green material may increase the number of bacteria as much as ten times within two days, says Mr. Smith. In four days there may be fifteen to twenty-five times the original

number of bacteria in the decomposing material and adhering soil. After about seven days the bacteria decrease in number almost as rapidly as they increased. No change in the number of bacteria takes place in the soil one-half inch away from the decomposing material.

Bacterial decomposition of green manure gives rise to carbon dioxide and ammonia. The carbon dioxide escapes from the soil into the air; the ammonia is absorbed by the soil and, through the action of bacteria, is first changed to nitrite and then

to nitrate. The greater the percentage of nitrogen in the green manure, other conditions being equal, the more nitrate will be formed from its decomposition. When crops low in nitrogen, such as mature rye, are turned under very little benefit will result from the following crop, since the amount of nitrogen bound up by the bacteria in decomposition may be greater than that obtained from the rye. Eventually the nitrogen is changed to nitrate, perhaps too late for the crop.

Decomposition of green manure is

greatly influenced by the temperature and moisture of the soil. Most soil bacteria require a temperature of 65 degrees to 70 degrees F., or often higher, for rapid activity. Under favorable conditions succulent green manure is usually decomposed in about seven days.

It has been known for many years that growing a cover crop and plowing it under as a green manure improves the physical character of the soil, increases its capacity to hold water, and helps to prevent erosion.

Suggestions For the Improvement of Dairy Barns in the Southeastern Section of Pennsylvania

By M. G. Betts, Architect, and M. A. R. Kelley, Assistant Engineer, Bureau of Public Roads
U. S. Department of Agriculture

(Continued from last month)

Stall Arrangement

In modern dairy barns of the type in most general use the cow stalls are arranged in two rows parallel to the length of the building and facing either toward a center feed alley or toward the outside walls. As compared with stall rows crosswise of the stable, this arrangement saves time and labor in feeding, handling and caring for the stock. A recent investigation indicates a saving of 30 per cent or more. If the barn is placed with the long axis approximately north and south and if windows are provided on both sides, each part of the stable gets the benefit of sunlight during some part of the day. In such a barn good air circulation with comfortable temperature is more easily maintained than in the bank type of structure. In a great many of the barns surveyed the cow stalls were in rows across the barn. When such light as enters the stables comes from one side this arrangement has one advantage in that the alleys in both front and rear of the stalls are lighted to some extent, if there is no overhang or one of very slight projection. Very often there is no inside communicating passage between the rows of stalls. In some instances there is a passage along the inner or bank wall. The stock at the inner ends of the rows receive little or no light and fresh air.

In the remodeling of old bank barns the rearrangement of stalls depends upon the dimensions of the stable, the overhead construction and the number and kind of stalls or pens to be provided. Every instance of remodeling is an individual problem. In some the stable is not wide enough to permit of two lengthwise rows of stalls. In others the position of girders and supporting posts is such that in any rearrangement of stalls they would compel a break in the range of stalls or obstruct one or more of the alleys. Steel girders and steel pipe columns, occupying much less space than the old heavy timbers and permitting greater spans between supports, have been installed in a few barns. Existing wooden posts sometimes may be shifted to allow proper stall spacing. Figure 10 is a plan of the same barn. Originally the stalls were in crosswise rows. In the new arrangement the stalls

were placed as near the outer wall as possible to obtain the greatest benefit from the light admitted through the windows to keep the stock away from the inner side of the stable which is still dark and damp since it was not possible to insert windows or fresh air inlets on that side.

Another example of an improved but still unsatisfactory stable is shown in Figure 11. Information with regard to the original stall arrangement was not available but evidence of change was to be seen in the location of girder supports, in the steel girders which replaced wooden timbers, in the concrete floors, in new windows under the overhang and at one end, and in ventilating flues which had been recently installed. The barn was clean and without undue odors. The lighting

was not by any means ideal because of the overhang, a feature which in this case could not be overcome without considerable expense. It would have been better had the horse stalls been placed at the other end thus obtaining better light for the cow stalls.

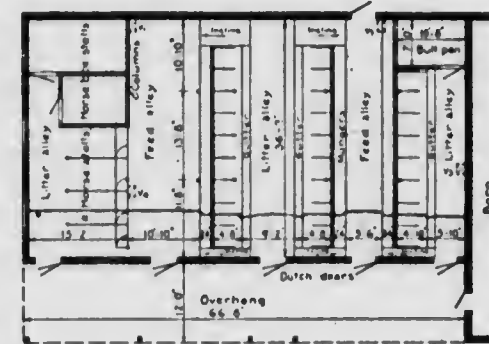


Figure 11. Plan of barn in which conditions were greatly improved but which still has objectionable features.

If horses must be housed in the same stable with dairy cows they should be separated by a tight partition. (Ammonia fumes from horse manure are likely to affect the flavor of milk. Flies breed at a much greater rate in horse manure than in that from cows.) In many localities horses are not permitted in the cow stable and it would be well for dairymen of the region under consideration to anticipate the probability of such a requirement becoming effective and, in remodeling, to arrange horse stalls so that they may be separated easily, or preferably, to eliminate them entirely.

The location of the bull pen is particularly objectionable as it is the darkest and least well ventilated part of the stable. Health and vigor in a bull is essential to the welfare of the herd. If kept for any length of time in quarters such as this he cannot be expected to remain healthy.

Stall Fastenings and Partitions

The old rigid wooden stanchions in which cows were imprisoned for long periods of time are no longer used by good dairymen. They have been replaced by modern swinging stanchions or ties which permit the cows more freedom of movement and allow them to rest in a natural position.

The stall equipment shown was made by home labor at small cash outlay. The swinging stanchion which may be had in wood, steel, or steel lined with wood, is desirable because of the comfort it affords the animal. If erected with hired labor the cost is not much less than that of complete commercial stall equipment which is considered the more sanitary.

Two types of modern fastenings are shown in Figure 8. That shown in B is the type of stanchion commonly used in modern dairy barns and is provided with secure but easily operated locks at the top. The partitions prevent the animals from soiling the adjacent stalls and from stepping on one another's udders. Stanchion adjusters may be had which permit adjustment of about 6 inches in length of stall. They are useful only when the stall platform is too long.

Chain ties are comfortable and inexpensive and have been used widely in connection with the old wooden box manger but they do not always prevent the animals from lying in their own filth. A proper tie must not only hold the cow securely, with freedom of movement, but it must also aid in keeping her clean. Figure 8A illustrates an improved type of chain tie in which a chain is attached to sliding rings

on standards placed about 18 inches apart. A neck band on the cow is secured to the chain by means of a strong snap. The cross bar above the chain is adjustable as to height and serves to force the cow to the back of the stall when standing. It combines the comfort and freedom of the old chain tie with the sanitary qualities of the steel stall and can be purchased at about one half the cost of the type shown in B. In another form of tie the old style chain with a toggle bar fastener is used

Water Bowls

It has been found that, under otherwise equal conditions, dairy cows which have free access to pure water produce more milk than those watered irregularly or only at certain hours of the day. The automatic water bowl at each stall provides the best means of supplying the cow with water when she wants it and has been found to be a profitable investment. The bowls must be of a good substantial type and properly placed. If they are placed too high the cow has difficulty in drinking and frequently is forced to lap the water out of the bowl. If placed too low she will sometimes place a foot on the valve lever and thus flood the stall. The proper height varies with the size of the cow. In general they should be placed from 26 to 28 inches above the floor for Jerseys and other small breeds and from 28 to 30 inches for Holsteins.

Litter Carrier

The modern litter carrier is another paying investment since it saves from one-half to two hours labor per day, depending upon the size of the herd, in cleaning the stable. The tight tub of the carrier prevents the dripping of liquid upon the alley floors, an objection to the use of wheelbarrows or manure spreaders in the barn, thus cutting down the amount of cleaning that must be done. The carrier saves many steps since it holds a great deal more litter than does a wheelbarrow. As it is suspended from a trolley with roller-bearing wheels on an overhead track, the effort required to move the carrier is much less than that required to push a wheelbarrow.

Litter carriers can be installed only where there is sufficient head room to permit of walking under the track. For stables where this is not to be had there are available carriers consisting of a tub mounted on wheels and arranged for attaching to a track conveyor and hoist at the entrance door.

In Plate 6-A may be seen one type of swinging track crane by means of which the carrier is conveyed to a manure pit, manure spreader or to one or more piles at a distance from the barn.

Hay Mow Framing

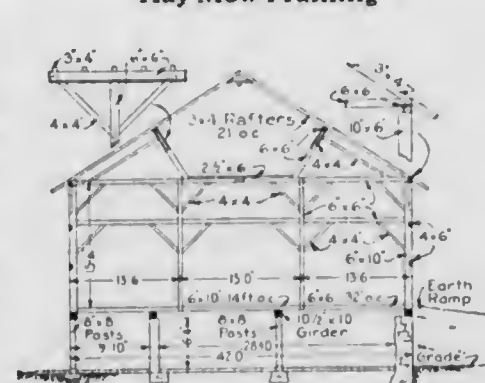


Figure 12. Cross-section of typical hay mow framing.

Figures 12 and 13 illustrate a suggestion for the changing of typical hay mow framing so that the storing of hay may be accomplished more expeditiously. The cross beams in the central bay, shown in

Figure 12, may be omitted since they are not necessary when the side bays are properly braced. Where the rafters are of a single length, as is usually the case, the old purlins and inclined supporting posts can be removed to be replaced by new purlins and posts as shown in Figure 13. The

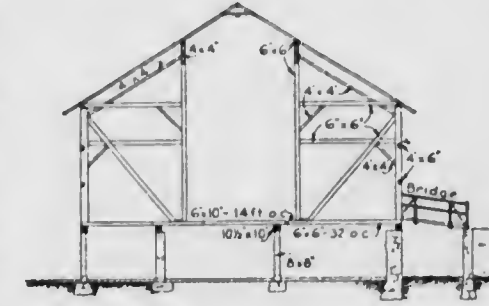


Figure 13. Remodeled framing of the mow shown in Figure 12 which expedites use of hay fork from mow floor or permits mowing of hay from outside through hay doors installed in gable walls.

old purlins and knee bracing, if in good condition can be placed in the new position but new posts spliced to the old posts below will be necessary.

This arrangement permits the use of an adjustable rope or chain on the hay fork, when the mow is filled from the mow floor, making it unnecessary to hoist each forkful of hay to the top of the mow. By discharging the driveway and inserting a hay door at one end of the barn the storage capacity of the mow would be greatly increased. In many barns, such as that shown in Plate 3-A, the extra space thus gained in the mow would permit of the removal of an overhang to provide better lighting in the stable below.

Repairs

A large number of barns visited during the survey were badly in need of repair. Whether improvements, such as have been suggested, are to be made or not repairs should be made particularly when failure of supporting members may jeopardize the whole or a large part of the structure. A small expenditure now may save a heavy expenditure later.

All walls and structural timbers should be examined for soundness. Timbers which show signs of rotting should be replaced. Cracked walls should be carefully pointed up or filled with cement grout. Rough wall surfaces should be made smooth by the application of cement plaster. The surface to be plastered should be first thoroughly cleaned with a stiff brush, roughened and moistened. A dry surface will absorb moisture from the cement mortar preventing proper setting and bonding. Bulging walls should be rebuilt. Where water seeps through walls effort should be made to prevent it.

Moisture and warmth are conducive to rot in timbers. Moisture collects in dairy stables in which the air does not circulate freely. Proper ventilation is the cure for this. Where timbers are exposed to the weather and moisture can enter cracks or joints, rotting soon occurs. In such places, particularly at or close to the ground, creosoted lumber should be employed. Lumber treated with creosote under pressure can be obtained in many localities. Where it is not available the dipping process, though not as effective, may be used. A bulletin on the treatment of timbers may be obtained from the Department of Agriculture.

In many of these old barns the mow floor is supported on wooden girders, cross girders, joists, and in some instances a sec-

¹ Hunt, George M., THE PRESERVATIVE TREATMENT OF FARM TIMBERS, U. S. Dept. Agr. Bul. 744, 34 p. illus.

(Continued on page 7)

INTER-STATE MILK PRODUCERS REVIEW

Official Organ of the
Inter-State Milk Producers' Association, Inc.

August A. Miller, Editor and
Business Manager
Frederick Shangle, Advertising Manager

Published Monthly by the Inter-State Milk
Producers' Association, Inc.

Business Office
Flint Building, 219 N. Broad St., Phila., Pa.
235 E. Gay St., West Chester, Pa.

Editorial and Advertising Office
Flint Building, 219 N. Broad St., Phila., Pa.
Bell Phone, Locust 5391 Locust 5392
Keystone Phone, Race 5344

Printed by Horace F. Temple, Inc.
West Chester, Pa.

Subscription
50 cents a year in advance
Advertising rates on application

"Entered as second-class matter, June 3, 1920,
at the post office at West Chester, Pennsylvania
under the Act of March 3, 1879."



We are still battling with a flush production of dairy products. This relates not only to fluid milk but to milk products generally. Neither is it confined to the Philadelphia Milk Shed alone, but has been more or less general throughout the country.

Heavy production of milk in October, November and December of last year still keeps on—and while it may not be so great, it nevertheless has been a menace to our market.

Surplus milk, that is milk in excess of the fluid demand in this market has remained relatively high and it is this milk that must stand the immediate brunt of price competition, that is the comparative price of milk going into butter and cheese, in other productive areas.

While butter stocks were lower on February 1st than on January 1st, the storage holdings are far too high and this surplus of butter must be removed, either by consumption or price reduction, and price reduction means further declines in the price that you will receive for your surplus milk.

If we can consume this surplus butter quickly, the market will naturally tend toward stabilization.

The elimination of the border cow will solve future production, she is being fed and milked at a loss anyway, but for immediate action, eat more butter and sell the idea to your friends and neighbors.

Congress is still battling with the new tariff rates. The House has passed a bill—unsatisfactory in the main to the dairy interests. The Senate is now considering this bill, but the movement is slow, and in many instances also unsatisfactory to the dairy interests.

The dairy interests are confronted with surplus and in instances these surplus products must compete with low priced dairy products from both at home and abroad.

Foreign oils, fats and etc., used in competition with dairy products, and, in instances less nutritious than those made from dairy products, have flooded our markets and at prices with which dairy products cannot compete. Every effort should be made to have Congress levy a tariff on such products as would bring them in fair competition with those made in this country.

A letter to your Senator expressing your opinion and belief that an adequate tariff, based on the demands of the dairy industry, be enacted, will, we believe would go a long way toward solving the present unrest and uncertainty which now confronts the dairy industry.

The season of the year is at hand when dairymen must observe particular caution so as to have their milk supply acceptable to the consuming public.

While this problem—one of garlic or grassy flavor, or a tendency toward souring and other bacterial conditions such as bitter and rosy condition of cream, are not new—and are steadily diminishing, a word of caution to the dairymen is not out of order.

The consuming public won't use garlicky or off-flavored milk and cream—it won't use souring milk and it won't use bitter or rosy cream.

Buyers must guard closely the acceptance of such undesirable milk as but small portions of such milk will contaminate the entire supply.

The production of such milk means not only the money and labor loss to the producer but has a strong tendency to decrease consumption and should be strictly guarded against.

If you want the public to drink milk see to it that your supply is the best that can be produced—free from all objectionable odors and flavors—clean, sanitary—in fact, that it be the best.

Over-production, be it in the milk or any other market goes a long way toward breaking down the price structure.

An even rate of production, adequate for the market demands, means a safe and sane market.

There has been an over supply of butter, cheese, condensed and evaporated milk and other dairy products, with consequently decreased prices.

See to it that your milk supply is not so great as to flood your market. A little care in production, the removal of the boarder cow, may help to hold your market.

Consider this carefully—it is your market that is at stake.

March Milk Prices

Under agreement with co-operating buyers, the price to be paid for basic milk during March remains unchanged. Surplus milk during March will be paid for under the agreement made on February 3rd, as will be noted below.

The price of basic milk, 3 per cent butterfat content, delivered at Philadelphia, will, subject to market conditions, be \$3.29 per hundred pounds or 7.4 cents per quart.

The price of basic milk delivered at receiving stations in the 51-60 mile zone, 3 per cent butterfat content, will, subject to market conditions, be \$2.71 per hundred pounds, with the usual differentials and variations at other mileage points.

SURPLUS MILK

Surplus milk shipped during March will be paid for by co-operating buyers, on the average price of 92 score butter, solid packed, New York City.

FEBRUARY BUTTER PRICES

	Philadelphia	New York	Chicago
1	37 1/2	36 1/2	35 1/2
3	36 1/2	35 1/2	34 1/2
4	36	35	34 1/2
5	37	36	35
6	37	36	35
7	37	36	35
8	37 1/2	36 1/2	36 1/2
10	38	37	36 1/2
11	38	37	36 1/2
13	37 1/2	36 1/2	36 1/2
14	37 1/2	36 1/2	36 1/2
15	37 1/2	36 1/2	36 1/2
16	37 1/2	36 1/2	36 1/2
17	37 1/2	36 1/2	36 1/2
18	36 1/2	35 1/2	35 1/2
19	36 1/2	35 1/2	35 1/2
20	36 1/2	35 1/2	35 1/2
21	36 1/2	35 1/2	35 1/2
22	36 1/2	35 1/2	35 1/2
23	36 1/2	35 1/2	35 1/2
24	36 1/2	35 1/2	35 1/2
25	36 1/2	35 1/2	35 1/2
26	36 1/2	35 1/2	35 1/2
27	36 1/2	35 1/2	35 1/2
28	35	34 1/2	33 1/2

MARKET CONDITIONS

H. D. ALLEBACH

In reviewing the market conditions in the February issue of the REVIEW, we stressed the necessity of the producer helping to consume the surplus butter, now on the market.

Realizing that excess production has helped to make this surplus butter and further, we believe that some of our producers have not, as yet, really used butter, we are again suggesting that our farmers and readers buy butter and use it. If we could continue the use of an extra pound of butter per week, it would not take very long to use the accumulated surplus. We further wish to call the attention of those who have not heretofore been using butter, that now is a good time to begin.

According to the latest available figures the production of milk, in our territory, has declined a trifle. But still it was far above the needs of the consuming public in our territory. With the reduced price being paid our producers for surplus milk we do not believe it would pay to produce any surplus at all under present conditions. Therefore, you should regulate your production and try to meet your basic amount and to produce nothing above that amount.

As near as we can learn there are about four per cent more milking cattle in the United States at present than there were a year ago and seventeen per cent more heifer calves than there were a year ago. This leads us to believe that our farmers are still trying to increase the production of milk, and, with a surplus of milk on the market we should proceed very carefully and not raise any more heifer calves unless they come from proven stock. All border cows should also be gotten rid of as soon as possible.

The surplus of milk in our territory is not, however, altogether due to the increased production, but some of the surplus is due to lack of consumption. The labor situation throughout the country is more or less unsatisfactory. Reports that we have obtained indicate that sales and consequently consumption of milk have fallen off all over our territory. In instances consumer consumption has decreased from 2 to 6 per cent and our producers would aid in the adjustment of this situation if they reduced production by that amount.

All these influences have had their effect on the market and some determined effort will be necessary if the market be quickly brought back to normal conditions.

February Milk Prices

Co-operating buyers, will, under the provisions of the Philadelphia Selling Plan, make the following basis of payments for milk purchased during the month of February. All milk will be purchased on the basic and surplus plan.

Grade B market milk, basic quantity average, will be paid for on the basis of \$3.29 per hundred pounds, three per cent butterfat content, f.o.b. Philadelphia, or

7.1 cents per quart.

Grade B market milk three per cent butterfat content, delivered at receiving stations in the 51-60 zone, for February, delivery, is quoted at \$2.71 per one hundred pounds. The usual butterfat differentials and freight rate variations, applying at other mileage zones in the territory are shown by quotations on Page 5 of this issue of the Milk Producers' Review.

The price of "A" milk, under the usual butterfat variation and prices in the different mileage zones in the territory and at "A" stations for February are also quoted on Page 5 of this issue of the Milk Producers' Review.

Surplus Prices

The price of Surplus Milk for February, three per cent butterfat content, f. o. b. Philadelphia, is quoted at \$1.58 per one hundred pounds or 3.4 cents per quart.

The price of Surplus Milk of the same butterfat content for February, at all receiving stations, is quoted at \$1.01 per one hundred pounds.

February Butter Market

The butter market has been more or less unsettled throughout the month. Early in February there was a tendency toward more stable conditions but the situation failed to be maintained.

Storage stocks of butter in the United States aggregated 60,229,000 lbs. on February 1st, as compared to 24,747,000 lbs. on February 1st one year ago and 31,220,000 lbs. the five year average. While these figures show a decrease of approximately 20,000,000 lbs. over the total storage on hand on January 1st, there is still a very substantial excess over normal holdings.

Material efforts are being made to increase butter consumption and they are having some influence, particularly if they be maintained for a considerable period. The lower level of prices has also, it is believed, had some influence on greater consumption.

The tremendous storage surpluses and the ability of holders to maintain their holdings in the face of declining prices, are important factors in the range of prices at this time. The 60,000,000 lbs. of butter in storage on February 1st is an amount almost twice as large as the average holdings for the same date and while the February movement has been active the result for March will, no doubt, again reveal record stocks.

Prices of 92 score solid packed butter, New York City, opened in February at 36 1/2 cents, there was a more or less irregular movement which reached 37 cents in mid month following which prices gradually sagged reaching 34 cents toward the close of the month.

The average price of 92 score butter solid packed, New York City on which the surplus price for February was computed was .3598.

Penn State Homestead Jessie Is Dead

Four years of important experiments in vitamin and bacteriological research came to an end with the passing of the famous Penn State cow with the window in her stomach. During that time it was learned that a cow could manufacture her own vitamin B in the rumen, or first stomach, when her feed contained none of the vitamin. It was also discovered that 90 per cent of the bacteria in the rumen were a kind not previously isolated. These were named Flavobacterium vitrum. Recently other important studies of bacteria,

in which Jessie figured prominently, had been started.

Penn State Jessie became perhaps the best known cow in the world during the time she was making her contributions to science. Newspapers all over America and in many foreign countries carried stories about her. Requests for information about the part she played and the results obtained came to State College from scientists all over the world. Thousands of people visited the college to see her in the past four years.

LATEST MARKET PRICES

The basic prices, quoted below, for February, 1930, represent those to be paid by co-operating buyers for that month.

For all milk in excess of the basic quantity the surplus price, quoted below, for the month of February is to be paid.

Surplus milk will be paid for under one classification. Class I, represented by the amount of milk in excess of the basic average, which will be paid for by co-operating dealers on the basis of 92 score butter, solid packed, New York City.

PHILADELPHIA SELLING PLAN

INTER-STATE MILK PRODUCERS' ASSOCIATION PRICES

This price list is issued with the understanding that it is not to be used by any dealer or any other person using it as a basis of payment to producers, shall in addition thereto make the following contributions and payments:

(1) To the Philadelphia Inter-State Dairy Council, 2c per 100 pounds (46 1/2 quarts) of all milk purchased from any producer at prices listed herein.

(2) To the Inter-State Milk Producers' Association, 2c per 100 pounds (46 1/2 quarts) of all milk bought from members of said Association.

(3) To the Philadelphia Inter-State Dairy Council, 2c per 100 pounds (46 1/2 quarts) of all milk bought from other producers at prices listed herein.

The funds so derived are to be used by the requests for improving standards of quality in production and distribution of milk in the Philadelphia Milk Shed, for improvements and stabilization of market and for an educational campaign advertising the food value of dairy products.

BASIC PRICE

February, 1930

F. O. B. Philadelphia

Grade B Market Milk

Test Per Cent. Per 100 Lbs. Price Per Qt.

1	3.29	2.71
3	3.05	3.11
3.1	3.33	2.75
3.15	3.35	2.75
3.2	3.37	2.75
3.25	3.39	2.75
3.3	3.41	2.75
3.35	3.43	2.75
3.4	3.45	2.75
3.45	3.47	2.75
3.5	3.49	2.75
3.55	3.51	2.75
3.6	3.53	2.75
3.65	3.55	2.75
3.7	3.57	2.75
3.75	3.59	2.75
3.8	3.61	2.75
3.85	3.63	2.75
3.9	3.65	2.75
3.95	3.67	2.75
4	3.69	2.75
4.05	3.71	2.75
4.1	3.73	2.75
4.15	3.75	2.75
4.2	3.77	2.75
4.25	3.79	2.75
4.3	3.81	2.75
4.35	3.83	2.75
4.4	3.85	2.75
4.45	3.87	2.75
4.5	3.89	2.75
4.55	3.91	2.75
4.6	3.93	2.75
4.65	3.95	2.75
4.7	3.97	2.75
4.75	3.99	2.75
4.8	4.01	2.75
4.85	4.03	2.75
4.9	4.05	2.75
4.95	4.07	2.75
5	4.09	2.75

When milk is not tested the price f. o. b. Philadelphia is 8 cents per quart.

FEBRUARY SURPLUS PRICES

F. O. B. Philadelphia

Grade B Market Milk

Test	Per 100 Lbs.	Per Qt.
1	1.58	1.4
3	1.60	1.4
3.1	1.62	1.5
3.15	1.64	1.5
3.2	1.66	1.55
3.25	1.68	1.6
3.3	1.70	1.65
3.35	1.72	1.7
3.4	1.74	1.75
3.45	1.76	1.8
3.5	1.78	1.85
3.55	1.80	1.9
3.6	1.82	1.95
3.65	1.84	2.0
3.7	1.86	2.05
3.75	1.88	2.1
3.8	1.90	2.15
3.85	1.92	2.2
3.9	1.94	2.25
3.95	1.96	2.3
4	1.98	2.35
4.05	2.02	2.4
4.1	2.04	2.45
4.15	2.06	2.5
4.2	2.08	2.55
4.25	2.10	2.6
4.3	2.12	2.65
4.35	2.14	2.7
4.4	2.16	2.75
4.45	2.18	2.8
4.5	2.20	2.85
4.55	2.22	2.9
4.6	2.24	2.95
4.65	2.26	3.0
4.7	2.28	3.05
4.75	2.30	3.1
4.8	2.32	3.15
4.85	2.34	3.2
4.9	2.36	3.25
4.95	2.38	3.3

MONTHLY BASIC PRICE OF GRADE B

OR MARKET MILK

3 per cent butterfat content

F. O. B. Phila. station 50 mile

Per Cwt. Quarts zone per cwt.

1928

January

February

March

April

May

June

July

August

September

October

November

December

1929

January

February

March

April

May

June

July

August

September

October

November

December

1930

January

February

March

April

May

June

July

August

September

October

November

December

February, 1930, Inter-State Prices at "A" Delivery Points

The price of "A" milk of any given butterfat content and bacteria count at any "A" milk delivery point may be ascertained by adding to the base price per 100 lbs. of 3.50% B.F. milk at that delivery point, as given in Table I, butterfat differentials and bacteria bonuses as indicated in Table II.

Table I—Base Prices at "A" Milk Delivery Points

Eastern States Farmers' Exchange

Plant the Right Corn

Maximum feeding value in silage is the factor for dairy-men to consider in selecting seed corn. Usually the seed which will produce the greatest weight per stalk at the time the ear attains the glaze stage is the most economical corn to plant for a silage crop.

With this in mind, the Eastern States Farmers' Exchange has selected enough strains of corn to fill adequately the needs of its members growing corn for silage purposes. It has standardized on six varieties not so much to reduce the cash price of seed corn for its members as to enable it to so select the seed corn it distributes that the resulting crop will produce the greatest net income.

The ears on which was grown the corn planted to produce Eastern States seed corn for 1930 planting were all selected from standing stalks in eastern fields, due regard being given to the factors which make each variety valuable under the conditions for which it is selected. The ears themselves were then gone over individually and only the best kernels of the right ears were planted.

Every ear chosen from these plantings was individually handled. The tips and butts were discarded. Even the slightly off-size kernels were removed by a machine built specially for the Exchange so as to obtain uniform kernels for edge drop corn planters. Having passed all these inspections, the seed will be tested for germination and is not shipped unless it germinates 90% or better.

The cost—is about 70 cents an acre, and as there is every likelihood that the supply of several varieties of Eastern States seed corn will be exhausted early, prudent dairymen had better order in the near future taking delivery and paying later for the seed if that is more desirable.

See your local representative or write for information on the Eastern States seed corn varieties—the number of days each requires for maturity, pounds of seed of each variety required to plant an acre, suggestions for fertilization, and the price.

Eastern States Farmers' Exchange

A non-stock, non-profit organization, owned and controlled by the farmers it serves

Headquarters: Springfield, Massachusetts

Cooling Milk Properly Prevents Losses

Dairymen in the United States lose millions of dollars annually because of poorly cooled milk and cream, says the United States Department of Agriculture in Farmers' Bulletin 976-F, "Cooling Milk and Cream on the Farm," a new edition of which has just been printed. These losses occur because inferior milk or cream is returned by dealers to the farmers, and because low-grade products bring low prices.

Eighty per cent. of the country's milk and cream supply is produced on dairy farms where ice is available, the bulletin says. Even where ice is not available, milk and cream, by better use of available cooling facilities, may be cooled more effectively than is often done.

The bulletin points out the necessity for prompt cooling of milk and cream and discusses the use of surface coolers, milk-cooling tanks, well or spring water, and mechanical refrigeration. Keeping milk cold during shipment and winter care and handling are other subjects discussed. Proper cooling is just as important with cream as with milk, especially as cream is often delivered less frequently than milk. Proper cooling is easily done with little additional equipment and labor.

Farmers' Bulletin 976-F is a revision of an older publication bearing the same title. It may be obtained from the Office of Information, Department of Agriculture, Washington, D. C., as long as there is a supply available for free distribution.

Imported Guernsey Makes Penn Record

In the English Channel just off the French coast lies the small island of Guernsey and on this island originated the breed which now bears its name. Imp. Victor's Dandy Deanie, a purebred Guernsey, bred on the island by J. E. Le Page has just completed a ten months test in Pennsylvania producing on twice a day milking, 9,694.8 pounds of milk and 520.8 pounds of butterfat. This record gives her seventh place in class DDD of the American Guernsey Cattle Club, Advanced Register. It also makes her Pennsylvania State Champion in the same class. She is owned and made her record at the farm of C. A. Lyon, Waynesboro, Pennsylvania.

Report of the Field and Test Department Inter-State Milk Producers' Association.

The following statistics show the average operations of all the Inter-State Milk Producers' Association field men in connection with testing, weighing and general membership work, for the month of January, 1930:

No. Tests Made.....	7385
No. Plants Investigated....	40
No. Membership Calls.....	76
No. Calls on Members.....	246
No. Herd Samples Tested....	417
No. New Members Signed...	30
No. Cows Signed.....	249
No. Transfers Made.....	7
No. Meetings Attended....	14
No. Attending Meetings....	1302

Erosion Takes Huge Toll

Recent estimates of specialists of the United States Department of Agriculture indicate that a total of 126,000,000 pounds of plant food is washed out of the fields of the United States every year. This is 21 times as much as the amount of plant food used by crops.

Registry By Photo Proves Popular

That the use of photos in the registration of purebred Holstein-Friesian cattle is rapidly increasing in popularity, is shown by the report of the Secretary's Office of The Holstein-Friesian Association of America for the months from July to November inclusive.

Instructions for the use of photographs were issued by the Association last June. As this information became known to the breeders, hundreds of applications accompanied by photographs were received with an increase of almost 1000 per cent. in five months, jumping from a total of 41 certificates of registration issued with photographs in July to 505 in October and 407 in November.

The difficulty of correctly representing the markings of Holsteins with broken colors has led to the adoption of photography as an aid to permanently identifying an animal. The successful discovery of a means of attaching the photos to the original application certificates in such a way that it is permanently attached and cannot be removed without destroying it led The Holstein-Friesian Association of America to adopt this as one of the means of insuring the purity of the Holstein blood lines.

The bulk of the registration applications continue to come to the Secretary's office as drawings but as two good side views of each side of the animal are all that are required, the simplicity of "taking a picture" rather than trying to draw the color markings is expected to make photographs an important feature in registrations.

Essential features of photo registration are the taking of a picture of each side of the animal (two pictures) and the sending of two unmounted photographic prints of each side (total four prints) to the Secretary's Office, attaching them to the application with a clip. The Secretary's Office mounts one set on each application and returns the other set mounted on the back of the registration certificate. The owner should then compare the photographs on the certificate with the animal and should notify Secretary if not correct.

Guilty Gullies

Approximately 17,500,000 acres of land in the United States formerly cultivated have been destroyed by gullying, or so severely washed that farmers can not afford to attempt cultivation or reclamation. This is enough land to support a nation, says the United States Department of Agriculture, and it exceeds the total area of tillable land in Japan.

NEARLY

Half a Billion Dollars

(including renewals)

Have Been Loaned by

The Federal Intermediate Credit Banks

SINCE 1923 TO

85 Farmers' Co-operative Marketing Associations with a membership of more than 1,250,000 individuals

THESE loans have been made upon warehouse receipts covering the following commodities to enable co-operatives to carry out their orderly marketing programs:

Wheat, barley, rye, flax, cotton, tobacco, wool, rice, bromcorn, red top and alfalfa seeds, evaporated milk, beans, cheese, olives and olive oil, canned and dried fruits, cold pack fruits, canned vegetables, hay, peanuts and other nuts, and honey.

The 12 Federal Intermediate Credit Banks located at

Springfield, Mass. New Orleans, La. Wichita, Kan.
Baltimore, Md. St. Louis, Mo. Houston, Tex.
Columbia, S. C. St. Paul, Minn. Berkeley, Calif.
Louisville, Ky. Omaha, Neb. Spokane, Wash.

Mineral Nutrient Facts At Penn State

The intense metabolism of the milk-producing cow depends on the re-activity of the mineral nutrients of her food, says Director E. B. Forbes, of the Institute of Animal Nutrition of the Pennsylvania State College.

Important scientific and practical problems in this relation are being studied by Doctor Forbes and his associates in the most extensive mineral metabolism experiment ever undertaken.

Twelve Holstein-Friesian cows are the subjects of this research program, and their mineral metabolism will be followed by means of continuous balance experiments throughout an entire year's cycle of lactation and gestation.

All of these cows have calved since November 30, and are now producing an average of over 53 pounds of milk per head per day.

Special stalls have been devised to permit of the accounting for the disposal of the nutrients of the rations, and complete balances are being made of the elements sodium, potassium, calcium, magnesium, phosphorus, chlorine and nitrogen; and bomb determination of the energy of the food and the milk are being made as a basis for the determination of the efficiency of the cow in transforming feed energy into milk energy.

This research involves personal attention during 24 hours of every day. It requires practically full time from seven of the scientific men of the Institute of Animal Nutrition, and seven other technical workers. In addition, counsel, assistance and financial co-operation are being contributed by the Agricultural Experiment Station, especially through its department of Dairy Husbandry.

Start Early Plants Now

Plants of the cool season crops, such as cabbage, lettuce, and cauliflower, may be started now in a greenhouse or hotbed. In the daytime a temperature of 65 degrees F. is best while at night it may drop to 45 degrees. The plants should be hardened to withstand light freezing, say State College specialists.

What Milk Powder Is

Dry skim milk, or milk powder, is nothing more than fresh, sweet skim milk from which the water has been driven off by heat, leaving a fine, white powder, which will keep sweet a long time and can be shipped great distances.

Shifting of Farm Population Was Less Rapid in 1929

The movement of farm population from farms to cities and from cities to farms declined in 1929, according to the estimates of the Bureau of Agricultural Economics, United States Department of Agriculture.

The bureau's figures show that 1,876,000 persons moved from farms to cities last year as compared with 1,923,000 in 1928; 1,978,000 in 1927, and a peak of 2,155,000 in 1926. The city to farm movement was also smaller, being placed at 1,257,000 persons last year compared with 1,347,000 in 1928 and 1,374,000 in 1927.

Births on farms last year are estimated at 631,000 and deaths at 281,000. Taking these figures into account along with the movement to and from farms, the bureau places the total farm population on January 1, 1930, at 27,222,000 compared to 27,491,000 on January 1, 1929, or a decrease of 269,000.

The bureau's figures for the past year show that in the New England States 67,000 persons left the farms and 50,000 returned to farms; Middle Atlantic States, 139,000 from farms, 110,000 to farms; East North Central, 275,000 from farms, 204,000 to farms; West North Central, 327,000 from farms, 225,000 to farms; South Atlantic, 292,000 from farms, 162,000 to farms; East South Central, 204,000 from farms, 136,000 to farms; West South Central, 331,000 from farms, 204,000 to farms; Mountain States, 127,000 from farms, 78,000 to farms, Pacific States, 114,000 from farms, 88,000 to farms. Births on farms were 23 to the 1,000; deaths were 10 to the 1,000.

Japanese Beetle Parasites Established in New Jersey

When an insect pest from a foreign country is found in the United States one of the first things entomologists think about is the possibility of finding natural enemies with which to control it. Encouraging reports have recently been issued from the United States Department of Agriculture's Japanese beetle laboratory relative to the natural control of this insect.

During the past year a nematode was found in New Jersey which has proved to be a very useful parasite of Japanese beetle larvae, under experimental conditions. So far this nematode has been found in only one locality, but department workers hope that future field investigation will reveal wider distribution. Experiments indicate that this nematode may eventually prove to be a highly desirable parasite to introduce in sections where there is urgent need for control of the beetle.

A species of Tiphia, a wasp-like insect introduced from Japan in 1921, also gives promise of becoming well established in this country. This insect is an efficient parasite of the Japanese beetle in its native home, and its apparent ability to survive in this country is encouraging to those interested in control of the beetle. Starting with one colony of 100 females in 1921, department workers now report that they have 135 colonies of the same size established throughout the infested region.

Blood Tells In Dairying

Cows are good or poor producers according to their blood inheritance. Do not waste time raising heifer calves unless from good, high producing cows and from a sire that also is from high producing stock.

Uncle Ab says: Don't live in the grave yard; the world is more interested in what you can do than in what your ancestors did.

Delaware Holstein-Friesian Asso. Meets

The regular annual meeting of the Delaware State Holstein-Friesian Association was held at Winterthur Farms, Winterthur, Delaware, on February 21st, 1930. About 250 dairymen attended.

There was an informal meeting held during the morning during which the Winterthur herd was inspected and a judging contest held.

After luncheon the session was called to order by J. W. Reynolds, president of the association, who made the following award in the judging and cow production guessing contest. This contest involved the correct placing of four Holstein cows and their estimated yearly production of butterfat.

The first prize—a registered bull calf, given by the Holstein-Friesian Association, went to Edgar Tracy Ennis, Clayton, Delaware. Second place was made by Harold T. Allebach, Trappe, Pa., and third place was taken by W. E. Gregg, Cossait, Pa.

J. R. Danks, Secretary-treasurer of the Delaware Holstein-Friesian Association, made a formal report, after which routine business was transacted.

Addresses were made by Dr. L. M. Thompson, vice-president of the Holstein-Friesian Association of America. Prof. Geo. C. Humphrey, Department of Animal Husbandry, Michigan College of Agriculture. He spoke on development of the Dairy Industry in Wisconsin. Miss Louise Everetts, of the Philadelphia Inter-State Dairy Council, entertained with a presentation of "Interior Decorating."

New Definition of Oleomargarine

On February 6th, in the National House of Representatives a new definition of Oleomargarine was adopted and now goes to the United States Senate for approval. The bill was introduced by Congress J. Hungen, and is known as H. R. 6. The bill on its passage was approved by a vote of 245 to 74. The new definition is as follows:—

"All substances heretofore known as oleomargarine, oleo, oleomargarine oil, butterine, lardine, suine, and neutral; all mixtures and compounds of oleomargarine, oleo, oleomargarine oil, butterine, lardine, suine, and neutral; all lard extracts and tallow extracts; and all mixtures and compounds of tallow, beef fat, suet, lard oil, fish oil or fish fat, vegetable oil, annatto, and other coloring matter, intestinal fat, and offal fat;—if (1) made in imitation or semblance of butter, or (2) calculated or intended to be sold as butter or for butter, or (3) churned, emulsified, or mixed in cream, milk, water, or other liquid, and containing moisture in excess of 1 per centum or common salt. This section shall not apply to puff-pastry shortening not churned or emulsified in milk or cream, and having a melting point of one hundred and eighteen degrees Fahrenheit or more, nor to any of the following containing condiments and spices: salad dressings, mayonnaise dressings, or mayonnaise products."

As amended before passage, the bill will become operative six months after enactment. The bill now goes to the Senate.

The TB Test Will Tell

Be on the safe side, says the Bureau of Animal Industry of the United States Department of Agriculture, and have your cattle tested for tuberculosis. In most cases the outward appearance of the animal bears no relation to the degree of infection. The disease develops so slowly that it may be months or even longer before any symptoms appear.



A RINGER every time!

Thousands of feeders have found that Larro is the one feed that makes a "ringer every time" in profit over feed cost.

Dairymen who feed Larro sometimes try cheaper feeds hoping for good results. They may get good results temporarily—but when milk production starts falling—when the cows go off-feed—constipation or udder trouble set in, they quickly come back to Larro.

They know that Larro keeps their cows in the pink of health and condition—and that it gives them the highest profit over feed cost.

T. J. Grace & Son, Rutland, Vermont, say:

"Have used Larro seven years. Fully convinced it made more profit for us than any other feed we could have used. . . . Have tried other rations but always come back to Larro. Our herd has been free from udder trouble and off feed condition. . . . We attribute this to your safe and uniform feed."

The exact balance of ingredients required to produce the highest profit over feed cost has been proved by years of tests at the Larro Research Farm . . . at the Larro Mill that balance of ingredients is accurately maintained by an exclusive Larro process. . . . Each bag of Larro is uniform in analysis, texture and feeding value.

Try Larro and you will know why it gets a "ringer every time". Your Larro dealer keeps a fresh supply on hand.

THE LARROE MILLING CO., DETROIT, MICH.



Larro

FEEDS THAT DO NOT VARY FOR POULTRY—HOGS—DAIRY

Larro Family Flour for • Bread • Biscuits • Cakes • Pies

Suggestions For the Improvement of Dairy Barns

Continued from page 3

ond layer of joists. This network of timbers affords many places for the lodgment of moisture and is difficult to ventilate. While these timbers generally are in a good state of preservation the housing of dairy cows without adequate ventilation will doubtless cause early deterioration. Where such floor construction shows need of replacement, or where additional head-

room would be desirable, steel beams may be substituted thus saving unnecessary timbers, adding to the headroom and often improving the light distribution. When moisture of ammonia gas, as in horse stables, is present all steel work should be coated with a good barn equipment paint to prevent corrosion and consequent unsightliness.

To be continued

HOME AND HEALTH

A Garden for the Growing Family

The vegetable seed catalogue makes popular reading matter. Some provident souls may already have their spring order prepared.

In connection with planning the seed list we are reminded of the phrase which the Dairy Council popularized soon after the war, "Filled or Fed." While mentally allotting space to various vegetables, be sure that you include those which are not only filling but which will feed the body needs of the family.

There's parsley for example. Out of one hundred and fifty green foods studied by the University of Wisconsin, it was found that parsley has the largest percentage of iron, one of the minerals required in building up our blood stream. Why should we not teach ourselves and the family to regard parsley not merely as an attractive garnish, but as an edible accompaniment to the dish with which it is served?



As for lettuce, most gardens have at least one row planted in lettuce. But as lettuce is a rapid grower and equally rapidly passes its prime, it is wise to order several different varieties of seed and plant in succession that you may be sure of having it for continuous use.

Modern children take for granted the carrots and spinach in their menu. A family with several children needs to make special provision for these two items. Even the skin of the carrot is valuable and scraping it has gone completely out of fashion.

Washing Woolens Successfully

Woolen sweaters and scarfs, knitted play suits for little children, and other knitted woolens that stretch easily when they are wet, may be washed without losing their shape. The secret of having them come out fluffy, clean, and the same size and form as before they were washed lies in gentle handling, the use of luke warm water, and careful drying. Before the garment is wet, measure and write down the length and width of both the body and the sleeves or legs. Brush the garment to remove surface dust; empty the pockets and brush their linings. Use tepid water and a mild solution of soap in water added to this to make suds. Squeeze the soapy water through the garment but do not rub it. Spots that do not come out readily may be rubbed gently with a little of the soap solution. Rinse the garment in several waters of the same moderate temperature, still squeezing rather than rubbing or twisting. Squeeze out as much of the water as possible, but never wring. Never hang knitted woolens on a clothes line. Lay the garment on several layers of bath towels or a folded sheet, arrange it according to its original measurements, and let it dry where there is a good circulation of air. Such treatment will give fresh, clean garments, as soft and shapely as when new.

Tips for the New Asparagus Grower

The old recipe for rabbit stew begins, "First catch your rabbit." Getting your asparagus roots is an important step. First select a reliable seedman. Get the Mary Washington variety or Martha Washington for second choice. Get one-year roots but large roots if you can. Fertilize the ground well before planting. Plenty of well rotted stable manure if you have it, plus a little sodium nitrate to start things off with a bang. If there is no stable manure, use a good garden fertilizer in which the three figures showing amounts of nitrogen, phosphoric acid and potash are nearly equal.

Work it into the soil at the rate of a pound to every six to eight feet of row.

Dig a trench seven inches deep. Spread the spider-legged roots out well and cover at first only one inch. Then all summer work soil in gradually until by fall the ground is level. Plant eighteen inches apart, rows four feet apart, but crowd them closer if land is scarce.

Cut no asparagus the first or second years and sparingly, about three weeks, the third year if it has grown well the first two years.

Early to Bed for Children

A regular bedtime every night and a quiet hour before, are habits that should be started early to prevent difficulties in children's rest and sleep.

Half an hour of quiet play before a simple evening meal, a pleasant and social supper which never is allowed to become noisy or hilarious, followed by a story hour or simple, quiet play is the schedule recommended. The play or stories may lead naturally to bedtime if the dolls are put to bed, toy animals in barns, and all the child's surroundings prepared for the night.

The proper bedtime depends upon the age and strength of the child. Having decided on the hour parents should hold to it. If children know they can put off bedtime by delaying or teasing to stay up longer they will do it. When parents take it as a matter of course that children will retire at the appointed hour without any fuss, the children will usually respond in the right way.

Excitement, either in play or stories, noisy play, and arguments about going to bed make it hard for children to settle down for the night. If the day's activities stop gradually, they will get into the mood for sleep and bedtime will be the natural and peaceful close of the day.

Plenty of vegetables in the diet are better for the family than tonics, for flagging appetites. Try serving one vegetable dinner a week and at least one green vegetable a day.

Careless preparation of vegetables, especially over-cooking, is often responsible for the unappetizing results that find their way to many tables.

A child should have at least two hours of outdoor sunshine daily, or its equivalent in cod-liver oil.

Our Two Gardens

We have two gardens. One is sweet with flowers, and one grows things to eat. My father calls them, just for fun, The Mary and the Martha one.

RICHARD KIRK.

Suits for the Small Boy

This is a good time of year to take advantage of the children's being away at school during the day to get in a little advance spring sewing. Winter clothes begin to show signs of wear and tear, particularly where there are boys in the family.

The boy of two or three has reached the age when he likes to learn new activities and to be independent. A mother should keep this in mind when making his suits, says Clarice L. Scott of the United States Bureau of Home Economics.

Simple front openings with buttons and button holes that are easily manipulated, uniform in size, and always in the same convenient place, make it possible for the boy to dress himself at an early age. Pull-over sweaters and blouses, complicated belts, and the all-too-common type of suit with more than a dozen buttons are a distinct discouragement to self-help.

An attractively designed suit can be ruined by poorly chosen colors. Blue, green, tan and brown are examples of boyish colors which are always safe selections of the particular color is becoming.

The most common and practical materials for trousers are poplin, broadcloth,



picque, drill, galatea, chambray and different brands of fabrics made especially for children's wear.

Other good pointers in making suits for the youngster are to be found in "Suits for the Small Boy" Leaflet No. 52" which may be secured free from the United States Department of Agriculture.

Rules for Rhubarb Growing

The old lady, famous for her rhubarb pies, said she put in all the sugar her conscience would permit, then shut her eyes and put in some more.

Plant rhubarb from root cuttings. The seedsmen sell them, but perhaps some neighbor will give you a few. Linnaeus and Victoria are recommended varieties. Linnaeus is the red variety sometimes called Strawberry rhubarb. Fertilize the ground first with plenty of manure or a good garden fertilizer worked into the soil at the rate of a pound for every four plants.

The roots should be covered four inches deep, two or three feet apart in the row and the next, four feet off, if you have more than one row. Fertilize every year at the time of planting. Keep weeds and grass out. Break off flowers stalks if they start. It is best not to pull stalks the first two years.

Planting the Permanent Garden

A corner of the plot of ground reserved for vegetable growing might well be made into a permanent garden, by the planting of a bed of asparagus and several hills of rhubarb in addition to small fruits.

These permanent crops should be so located that they will not interfere with garden plowing or the cultivation of the annual vegetables. In small gardens the asparagus bed may occupy an offset at the end of the garden, and the rhubarb hills along the side fence, suggest United States extension horticulturists.

Sometimes the rhubarb or asparagus is arranged in a sort of row or narrow bed across the front of the garden, separating the garden proper from the lawn at the rear of the house.

Rhubarb thrives only in those parts of the country where the ground freezes to a depth of four inches or more during the winter.

Plenty of asparagus for a family of six persons can be grown on a plot of ground no larger than twelve or sixteen feet square, provided the soil is well enriched and the plants are given good attention.

To protect the top of blankets and quilts from being soiled, bind the edge with a piece of cheesecloth or other inexpensive material about sixteen inches wide which matches the blanket in color. When this is soiled it is easily removed and laundered.

If food looks delicious and tempting when it comes on the table it is rarely necessary to nag or beg children to eat it.

Help Yourself Again to Butter

The result of the vast amount of sixty million pounds of butter now in cold storage comes home to our own door when it affects milk prices.

Someone has estimated that if each person in the United States would consume one more pat of butter each day for one month, this entire surplus would disappear. In the face of this situation it is being said that one farm out of five is actually buying butter substitutes instead of patronizing their own product which contains such real food value.

It behooves everyone to put a shoulder to the wheel to help move that storage butter. Probably you're already taking advantage of the low selling price of butter to use it more freely in both your table servings and in cooking. The following recipes suggest several unusual butter dressings.

Ruthven Salad Cream

1/2 tsp. salt 2 egg yolks
1/2 tsp. mustard 3 tbsp. melted butter

1/4 tsp. sugar 1/4 c. milk
1 tbsp. flour 1/4 c. vinegar

Mix dry ingredients, and when thoroughly blended add egg yolks, slightly beaten, melted butter, milk and vinegar. Cook in double boiler, stirring constantly until mixture thickens. Strain and cool.

Maitre D'Hotel Butter

1/4 c. butter
1/8 tsp. pepper
1/2 tsp. salt
1/2 tsp. finely chopped parsley
1/4 tsp. lemon juice

Put butter in a bowl, work until creamy. Add salt, pepper and parsley, then lemon juice very slowly. Delicious with steak or roast.

Is Your Child Growing?

Dr. Hannah McK. Lyons

(Continued from last month)

Watching the development of our young people is no new thing. So long ago as New Testament times, St. Luke, in speaking of the boy Jesus, said, "He grew in wisdom and stature." In any well built child's body, certain signs are to be noted:

1. Hair plentiful with a lustre due to sufficient natural oil
2. Eyes bright and clear, moving normally, no squinting, no dark fatiguing rings under the eyes; mucous membrane pink and free from inflammation.
3. Nasal breathing the ability to breathe deeply and easily through the nose with mouth closed! (Especially when exercising or sleeping.)
4. Teeth well formed and enameled; set far enough apart to be quite even
5. Color of skin and mucous membrane generally a ruddy pink (certain nationalities have paler skin, even when the blood is normally rich in iron)
6. Quality of the skin slightly moist, clear, soft and smooth.

7. Muscles firm and strong. It is important that there be general muscular development, rather than only one group of muscles highly developed.

8. Subcutaneous tissue fat beneath the skin plentiful, and so firm that the skin cannot be raised in deep thin folds between the fingers.

9. Shoulders may be sloping or squarely built but should not be rounded forward.

10. Chest broad and deep with good expansion. From two to three inches is normal according to age of child.

11. Arms and legs the long bones are straight. The leg bones are neither bowed outward, nor inward so that the knees knock together.

12. Ankles inner and outer sides equally prominent; the inner not projecting abnormally, as when the arches of the feet are weak.

13. Feet arches strong and limber. Some are normally higher than others. Inner borders straight from heel to tip of great toe.

14. Weight suitable to age and height. (Weight alone must not be relied on. All these other factors are of equal importance with weight). The important thing is to know that the child is gaining regularly at a satisfactory rate.

Let us turn to the "Outward Signs of a Well-Functioning Body;" for here we see that the reflection of good physical health in the child's character is that which makes the effort to improve his health so worth while.

1. Alert, happy expression the close relationship between bodily and mental health cannot be too strongly emphasized.
2. To function well, the tongue must be moist, red and clean.
3. The breath will be sweet.
4. The posture good. Evidence of good standing posture is the body equally balanced upon the ball and heel of the foot. The feet parallel, great toes pointing forward. Shoulder blades held flat across the back. Head held erect, chin in and shoulders level.
5. Prompt, efficient muscular co-ordination. As your baseball or football team learn to work as one person for team work, so the 500 muscles of the optimal child will work together as a well trained team. (There are two times in life when we do not expect this thorough co-ordination: during the first 2 or 3 years of life, and again at the age of 11 to 14 years, when muscular strength does not always keep up with the growth of limbs.)
6. Bodily repose, freedom from constant, unnecessary activity. How often we see the child of whom it is said, "They never keep still," and invariably there you find the underweight child.

7. Endurance having the ability to indulge in all ordinary exercise without undue fatigue; no dropping out of the game "just too tired to finish."

Is it too much to hope that every parent will think seriously of their part in training the child in positive health until we can say with Kipling:

"There is one lesson at all times and places, One changeless truth on all things changing writ:

For boys and girls, men, women, nations, races—

Be fit—be fit and once again, be fit."

TRY THIS INTERESTING TEST ON YOURSELF

HERE'S A CHANCE to compare yourself with your neighbors! Sharpen up the pencil and fill in your dairy record to the right. The answer is what your cows are doing for you in the way of money per day over feed cost.

Compare it with the records already gathered on 323,801 other cows in the United States and Canada. The average profit per day from those cows fed hand-mixed rations is 37 cents. On cows fed commercial feeds . . . 39 cents. On those fed Purina Cow Chow . . . 45 cents!

Compare yourself with these other dairymen! It takes only a minute to fill out the record and then you'll know! And besides being an interesting test, it may show you a way to make more money!

GET A CHECKERBOARD PENCIL FREE!

As soon as you're filled out your record and discovered where you stand, tear out this sheet and mail it to Purina Mills, 854 Grant Street, St. Louis, Mo., and in a few days you'll find a checkerboard pencil in your mailbox... a gift from the Purina Mills. Purina is interested, too, in how well your cows are doing!

DAIRY PROFITS RECORD

No. of cows milking.....

Total milk production per day.....

Price received for milk.....

Total value of milk per day.....

Kind of grain feed used.....

Lbs. of grain feed used per day.....

Cost per pound.....

Total value grain feed used per day.....

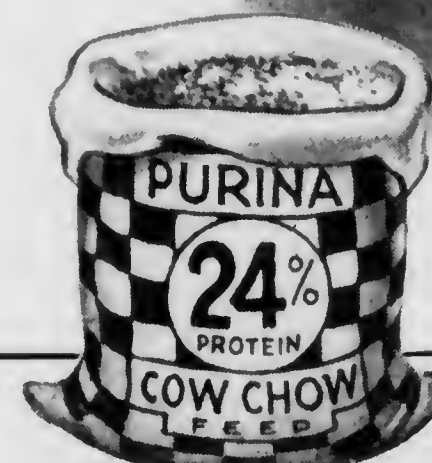
Total profit per day over feed cost.....

Profit per cow per day.....

Please Send Checkerboard Pencil to

Name.....

Address.....



Philadelphia Inter-State Dairy Council

Gen'l Office, Flint Building, Philadelphia
A co-operative movement established for the dissemination of information and publicity pertaining to the production and distribution of dairy products and their food value in nutrition.

Affiliated with the National Dairy Council

Dr. Clyde L. King, President
H. D. Allebach, Vice President
C. I. Cohee, Secretary
F. W. Ealy, Assistant Secretary
R. J. Harrison, Jr., Treasurer
George J. Hauptfuhrer, Assistant Treasurer

Departmental Branches
C. I. Cohee, Director Quality Control Department
Dr. E. G. Lechner, Assistant Director Quality Control Department
Lydia M. Broecker, Nutrition Department
Del Rose Macan, Dramatic Department
August A. Miller, Publicity Department

One means of preventing colds is to build up a resistance against them by a diet which includes foods rich in vitamin A, such as milk, cream, butter, cheese, leafy vegetables, eggs, and cod liver oil.

Drainboards on both sides of the sink make dishwashing easier and save the breakage likely to follow when there is nowhere but the sink to put the soiled dishes.

Blend the sandwich filling with the creamed butter to save time in making sandwiches.



2000 CHICKS AND FEED COST — —

Paid For At 7 Months of Age

BY USING ONE MASH that contained everything needed to start his chicks and grow them, Mr. William Deemer of Danboro, Pa. was ready to make clear profit on his 1929 birds when they were 7 months old. That mash was Amco Starting and Growing Mash, which combines all the proteins, minerals, and growth promoting vitamins needed by young chicks from first feeding until they are ready to lay.

The Amco plan for feeding chicks is simple, economical, and effective. Feed Amco Starting and Growing Mash as an all mash ration for the first six to eight weeks. Then feed an increasing amount of scratch grains, until at 12 weeks the birds are eating equal parts of scratch and mash. If both feeds are hopper fed, the birds will make this adjustment themselves.

Get results like Mr. Deemer's!

In April, Mr. Deemer started 2,000 baby chicks. The total feed cost to December 1st was \$958.01, and this as well as the cost of the chicks, was practically paid for by the sale of cockerels, eggs, and a few of the pullets. The 826 pullets left were then doing 40 per cent production. All the birds were raised on Amco Starting and Growing Mash, with a mortality of only 47 chicks.

Last year on 1100 birds, counting pullets and old hens, Mr. Deemer made \$3.00 per bird over feed cost, an income of \$10.24 per day over feed cost.

See your nearest Amco Agent.

AMCO FEED SERVICE
DIV. OF ALLIED MILLS, INC.

DISTRICT OFFICE: MUNCY, PA.

Open Sheds For Dairy Cows Practical In Mild Climate

The open shed or covered barnyard is a practical method of housing dairy cows in moderate climates, say dairy officials of the United States Department of Agriculture.

It provides the best known method of preserving all the fertilizing constituents of the manure. When there is plenty of bedding, cows in open sheds keep cleaner than those confined in stanchions, even when manure is allowed to accumulate for several months at a time. At the experiment station of the Bureau of Dairy Industry at Beltsville, Md., 68 per cent more bedding is used in the open shed than when the cows are stanchioned.

The open shed method permits freedom of action of the cow and gets her off the hard floors of the cow barn. Also where a small milking barn is used, the open shed is a cheaper method of housing than the customary dairy barn.

The Bureau of Dairy Industry is now building sheds at some of its field stations and dividing them into pens, so the herd may be divided into small groups. Mangers with rigid stanchions are built at the feed alley, so the cows may be fastened and fed individually. This is desirable because timid cows are often fought away from feed racks when the cows are not fastened at time of feeding. Cows housed in open sheds should be dehorned.

Farmers Becoming More Efficient

One of the interesting developments of agriculture in the United States today is that fewer farmers, with less labor, on fewer acres, continue to increase production.

In the past four years, says the Bureau of Agricultural Economics, United States Department of Agriculture, agricultural production has averaged about 16 per cent more than in 1919-1922, due chiefly to better farming. The farmer knows more about his soils and the plants and animals with which he deals. He is in better position to combat pests and to apply his labor more efficiently so as to secure larger returns in volume of production per unit of labor or capital employed. He is using more fertilizer; expenditures for fertilizer in 1924 were more than double those for 1909.

The farmer is feeding his livestock better, as indicated by an increase in feed purchases. He bought, on the average, nearly 70 per cent more feed in 1924 than in 1909. He is learning not only better to feed his land and his livestock, but also to select and plant better seed, and to breed and feed better animals.

Buy Seed Carefully

Owing to the good crop of red clover seed produced in the country last year, prices are lower than usual. Farmers are urged, however, to buy from reliable seedsmen or to have a good-sized sample of the prospective purchase analyzed for impurities and tested for germination by the State Department of Agriculture before buying.

Repair Garden Tools

Much time will be saved and inconvenience avoided if the garden tools are inspected and put in condition during the spring. Some will need to be cleaned of rust and sharpened or repaired. Missing tools and parts should be replaced now.

Uncle Ab says that the most effective workers he knows never seem to be in a hurry.

Farm Wages Are Lower

The supply of farm labor was approximately 15 per cent greater than the demand on January 1, with a consequent lowering of the farm wage rate in all part of the country, according to the January report on farm labor and wages issued recently by the Bureau of Agricultural Economics, United States Department of Agriculture.

Farm wages increased during the first ten months of last year, but from October 1929 to January 1, this year, the curtailment in industrial activity resulted in a sharp increase in the supply of farm labor and a greater than average seasonal decline in farm wages, according to the bureau.

The index of the general level of farm wages was 159 on January 1, this year as compared with 162 on January 1, a year ago, the 1910-14 pre-war period being used as a base of 100. Wages per month with board, for the United States, are placed at \$32.29 on January 1, compared with \$33.04 last January; wages per month without board, \$46.80 as compared with \$47.24 a year ago; wages per day with board, \$1.73 compared with \$1.78; and wages per day without board, \$2.27 compared with \$2.34.

Monthly wages were highest in the Far Western States and lowest in the South Atlantic States; day wages were highest in the North Atlantic States and lowest in the Southern States.

Raising Baby Chicks Big Business

It sometimes seems remarkable that the breeding and sale of baby chicks has grown to such remarkable proportions.

For the operation of one hatchery, located near Dover, Delaware, 22 tons of eggs are required every twenty-one days to keep the hatching plant running at full capacity. Every twenty-one days this plant sets some 334,000 eggs, with a net result of around 220,000 baby chicks.

This year practically all of the flocks at this hatchery have been strictly culled or blood tested by the State Board of Agriculture. Flocks and hatcheries are under close supervision and plans are now under way to have about 40,000 birds blood tested.

These few lines will give our readers an idea of the tremendous productive power of the present day commercial baby chick hatchery and the effort of such breeders to offer to the trade a baby chick which is not only from tested flocks but one that is healthy and with ordinary care—capable of good growth and productive capacity.

Provide An Ice Supply

The farm ice house is a valuable asset during the warm summer months. Plan now to build such a house and fill it as soon as good ice is available.

A ton to a ton and a half of ice for each cow represents about the average requirement for cooling next seasons milk.

Produce the Best

In planning the year's operations on the farm, it is a good idea to consider the opportunities for marketing high quality products. Gaining a reputation for producing the best brings established customers who will be loath to change to an uncertain supply.

Home conditions have the greatest effect in setting the child's character.

DOUBLE DIAGNOSIS

"How's your car running?"
"Not so good. I can't keep it throttled down."

"How's your wife?"
"Oh, she's about the same."

—Pathfinder

Compensation, Automobile & Truck Insurance

Save Money by Giving Us Your Insurance

Our policies furnish Compensation protection as required by the Compensation Act. We protect the employer as well as his employees. We paid a dividend for 1928 of 18%. If interested, write for particulars.

I am interested in having Casualty Insurance for my help and protection for myself, 24 hours in the day. I estimate my payroll for the year at
Occupation
Name
Address

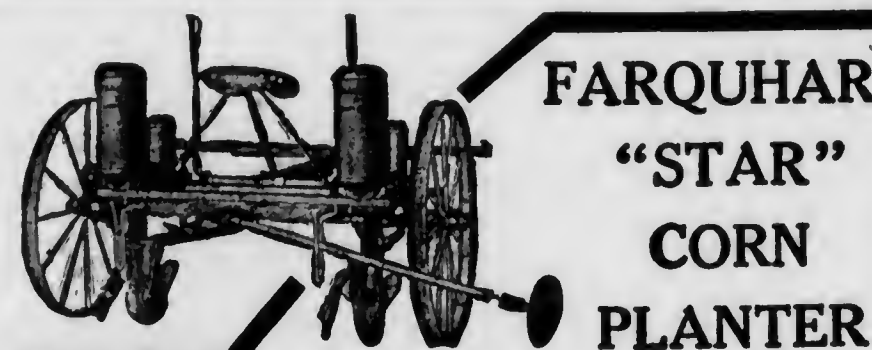
We write insurance in the state of Pennsylvania only.

WE WRITE A STANDARD AUTOMOBILE POLICY. IF INTERESTED, FILL IN THE ATTACHED BLANK AND WE WILL GIVE YOU FULL INFORMATION

Name Address City County
Insurance Begins 19..... Expires 19.....
Business Mfg. Name
Type of Body Year Model No. Cylinders
Serial No. Motor No. Truck
Capacity Serial No. Motor No.

Pennsylvania Threshermen & Farmers' Mutual Casualty Insurance Co.

311 Mechanics Trust Bldg., Harrisburg, Pa.



FARQUHAR "STAR" CORN PLANTER

Puts the kernels of corn where you want the stalks to grow—on level ground or steep hillsides. Each row has separate adjustment as to depth of planting. Adjustable as to width between the rows.

Well adapted to all kinds of soil and very accurate on steep hillsides; for all kinds of grain—corn, beans, peas, beets.

Built with and without fertilizer sower. Double Discs, Runner or Shovel Openers and Disc or Scraper coverers.

You can plant your corn exactly as you wish with a Star Two Row Planter—a positive drop and at any reasonable depth with light or medium covering. Write today for full description and learn how to produce the greatest corn crop.

Threshers
Hay Balers
Engines
Boilers
Cider Presses
Dairy Boilers
Sawmills
Traction Engines
Manure Spreaders
Grain Drills
Corn Planters
Harrows
Harrow-rollers
Shovel Plows
Cultivators
Weeders
Corn Shellers
Potato Diggers
FARQUHAR
Box 761 • YORK, PA.

Advertisers Wish to Know Where You Read Their Ads....

WHEN WRITING ADVERTISERS IN
THE MILK PRODUCERS' REVIEW
MENTION IT IN YOUR LETTER



make cream checks BIGGER with less work

YOU can pick your cows carefully, feed them properly, and be rewarded with great pails of rich milk—but this does you little good if you let precious butter fat run out the milk spout of your cream separator.

Make sure of your full share by replacing your

old cream-waster with a new McCormick-Deering Ball-Bearing Cream Separator. The McCormick-Deering dealer near you sells six sizes—for 1 cow or 100—in hand, belted, and electric drive. Ask for a demonstration.

Send for our illustrated folder on cream separators.

INTERNATIONAL HARVESTER COMPANY

OF AMERICA
(Incorporated)
PHILADELPHIA HARRISBURG BALTIMORE

Cool your Milk

this new and better

Way. . . Cool it quickly to below 50 degrees and KEEP IT COOL. Do this if you want top prices . . . and if you want to supply milk that is clean, wholesome and low in bacterial count. The ESCO Milk Cooling Cabinet is designed exclusively for cooling and storing milk on the dairy farm. Operated by electric refrigeration . . . controlled automatically, maintaining a uniformly low temperature. Cans of milk placed in the ice cold water of an ESCO Cabinet are cooled quickly and kept at a temperature below 50 degrees. It is the easiest method—clean, trouble-free and inexpensive. Exactly what you have been seeking.



ELECTRIC MILK COOLING CABINET

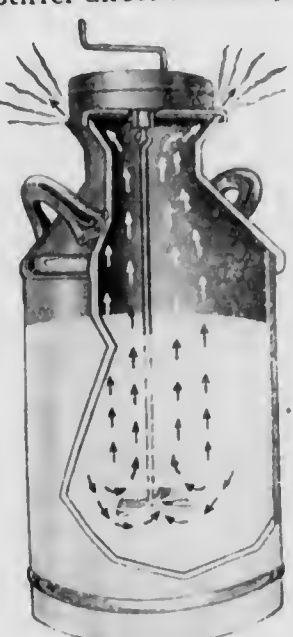
Some territory still open for distributors and dealers

Built in 4, 6, 8, 10, 12 and 14-can capacities. Insulated with 3" cork on all sides. Refrigerating coils encircle interior.



Send for complete information
ESCO Cabinet Co., West Chester, Pa.
Please send me full information concerning the ESCO Milk Cooling System for dairies.
Name _____
Address _____
Town _____
I make _____ cans of milk per day (2 milkings)
State _____

AGENTS WANTED
to sell our Milcare Automatic Cream Stirrer direct to milk producers.



Milcare increases profits, cools your milk quickly, checks bacterial growth and prevents off-flavors and souring. Milcares are sold with a guarantee. If dissatisfied, return within 30 days and purchasing price will be refunded.

PRICE
\$9.50 F. O. B.
Fergus Falls.

MILCARE COMPANY
Fergus Falls
Minnesota

Always mention the name of this paper when answering advertisements

If YOU WISH TO KEEP POSTED ON DAIRY PROGRESS—

READ THE

Inter-State Milk Producers' Review

If YOU WISH TO KEEP POSTED ON NEW EQUIPMENT, FEEDS, CATTLE SALES, Etc.—

READ THE ADVERTISEMENTS IN THE

Inter-State Milk Producers' Review

Report of the Quality Control Department Philadelphia Inter-State Dairy Council

The following is a report of the work done by the Quality Control Department of the Dairy Council for the month of January, 1930:

No. Inspections made	1,758
Sediment Tests	1,257
No. Permanent Permits Issued	68
No. Temporary Permits Issued	80
No. Meetings Held	3
Attendance	310
Reels Movies Shown	5
No. Man Days	79 1/2
Fairs and Exhibits	3
Bacteria Tests Made (Plants)	14,902
No. Miles Traveled	14,902

During the month 24 dairies were discontinued from selling for failure to comply with the regulations. 12 dairies were reinstated before the month was up. To date 153,361 farm inspections have been made.

Dairy Industry Gives Up Timothy for the More Productive Legumes

In the last few years there has been a great increase in the demand for legume hays on the part of the dairy industry, especially for alfalfa hay, and alfalfa and other legume hays are displacing timothy hay for all kinds of livestock, because of their high value as food for the animal and for the production of animal products, their value in balancing the ration, and the economy in using them, says the Bureau of Agricultural Economics, United States Department of Agriculture.

Statistics of the bureau show that in the seven years ended in 1929 the leading timothy hay producing states of the Great Lakes region including New York, Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota and Iowa increased the acreage of alfalfa cut hay from one and a third million acres to two and three-quarter million acres and reduced timothy acreage from seven million acres to four and a quarter million acres.

Experimental work in feeding dairy cows, says the Department of Agriculture, has repeatedly shown the superiority of legume hays over timothy for milk production. Although it is considered inadvisable to substitute legume hays entirely for protein concentrates in rations, farmers are being urged by the Department to feed legume hays instead of less productive hays. Many soils, says the Department, can be made suitable for the growth of alfalfa or clover by an investment in lime and phosphates. Many farmers, in these States, could increase their farm incomes materially by growing high quality legume hay for market, says the Department.

Second Sight

Wilber, having been to New York, was telling his cronies of the sights he saw.

"An' up at the hospital I seed one of these machines that tell if a man's lying." "Pooh," said Luke from his corner. "Pooh? Did you ever see one?" "See one? I married one!" —Schnectady Union-Star.

Date Set for 4-H Camp

The Fourth National 4-H Club Camp will be held from June 18 to June 24, inclusive, on the grounds of the United States Department of Agriculture, at Washington, D. C. As heretofore, two boys and two girls will represent each State.

Farm Study Indicates Productive Basis

(Continued from page 1)

calf is raised with every seven milking cows. In general it is found that heifer calves are being raised much more extensively in districts located at a distance from Philadelphia. It is quite evident also that there are a great many heifer calves being raised on nearby farms, especially those farms producing "A" and "AA" milk.

Production and sale of milk per cow varies widely in different sections of the Inter-State territory, ranging from 3,500 pounds of milk per cow in some districts to as high as 7,200 pounds per cow in other districts, indicating that some dairymen are producing over twice as much milk per cow as other dairymen shipping to the same terminal market.

An encouraging factor in the summary is the fact that a great many unprofitable cows are being removed from the herds. It can be safely assumed that dairymen in this district are replacing with home raised heifers their herds at the rate of at least 20,000 animals per year. The indications are that a large portion of home raised heifers are replacing unprofitable cows in the herds rather than being added to the herds. The fact that the sale of milk per cow increases in 1929 over 1928 verifies this observation.

Bad Flavor in Your Milk and Cream

(Continued from page 1)

when feeds are the most scarce, and at stations that have a low average production per cow; it would appear that lack of proper feed helps to aggravate this trouble. All dairymen should "dry-up" all stripper cows, use no feeds that might impart a bitter flavor, and feed a liberal amount of leguminous roughage and a balanced grain ration.

Inter-State Milk Producers' Association

Incorporated

Flint Building, 219 N. Broad St. Philadelphia, Pa.

Representing over 21,000 Dairy Farmers in the Philadelphia Milk Shed

OFFICERS

H. D. Allebach, President
Frederick Shangle, Vice President
J. W. Zoller, Secretary
August A. Miller, Assistant Secretary
Robert F. Brinton, Treasurer
F. M. Twining, Assistant Treasurer

Board of Directors
H. D. Allebach, Trappe, Montgomery Co., Pa.
S. K. Andrews, Hurlock, Dorchester Co., Md.
J. H. Bennet, Sheridan, R. D., Lebanon Co., Pa.
Ira J. Book, Strasburg, Lancaster Co., Pa.
Robert F. Brinton, West Chester, Chester Co., Pa.
E. H. Donovan, Smyrna, R. D., Kent Co., Del.
E. Nelson James, Rising Sun, Cecil Co., Md.
J. W. Keith, Centerville, Queen Anne's Co., Md.
H. I. Lauer, Port Royal, Juniata Co., Pa.
S. Blaine Lehman, Chambersburg, R. D., Franklin Co., Pa.
A. R. Marvel, Easton, Talbot Co., Md.
I. V. Otto, Carlisle, R. D., Cumberland Co., Pa.
J. A. Poorbaugh, York, York County, Pa.
C. F. Preston, Nottingham, R. D., Chester Co., Pa.
Albert Sarg, Bowers, Berks Co., Pa.
John Carvel Sutton, Kennedyville, Kent Co., Md.
Frederick Shangle, Trenton, R. D., Mercer Co., N. J.
C. C. Tallman, Columbus, Burlington Co., N. J.
R. I. Tunney, Hollidaysburg, Blair Co., Pa.
Harry B. Stewart, Alexandria, Huntingdon Co., Pa.
S. U. Troutman, Bedford, R. D., Bedford Co., Pa.
F. M. Twining, Newtown, Bucks Co., Pa.
F. P. Willis, Ward, Del. Co., Pa.
A. B. Waddington, Woodstown, Salem Co., N. J.

Bone meal, limestone and salt are the only minerals necessary in the dairy ration. Complex mixtures are a waste of money.



PHOTOGRAPH OF RED CROSS FILTER CLOTH

Use this Finest of Milk Filter Cloths

HERE is what, in our opinion, is the finest Filter Cloth ever offered to the dairy industry—Johnson & Johnson's Red Cross (No. 1 Quality) Filter Cloth. This snow-white fabric, woven in our mills, has a beautiful long nap. Red Cross Filter Cloth is woven to withstand a continuous flow of milk under high pressure. Its great durability means real economy in use. It is guaranteed without qualification to give complete satisfaction. Made in rolls, squares, disks, bags and tubes, under the same high standards of sanitation as the world-famous Johnson & Johnson surgical dressings and hospital supplies. Samples will be gladly mailed upon request.

DAIRY FILTER PRODUCTS DIVISION

Johnson & Johnson
NEW BRUNSWICK NEW JERSEY

THE JOHNSON & JOHNSON LINE OF DAIRY FILTER PRODUCTS

RAPID-FLO FILTER DISKS

The fastest efficient filter disk on the market. Developed in extensive tests under actual farm conditions to a point where it established an average period of 5 minutes to filter a 40-quart can of milk. Permits a steady stream of milk to pass through the strainer. Made in all sizes, with or without gauze facing.

FILTER CLOTH

Besides Red Cross Filter Cloth, we manufacture two other grades of Filter Cloth in cotton, No. 2 and No. 3. Our No. 4 Filter Cloth is

made of unbleached flannel. All grades made in bags, tubes, disks and squares.

FILTER COTTON

Filtocott, absorbent cotton for dairy filtering, is a good grade for filtering purposes. Supplied in rolls 12 inches wide, half-pound and pound sizes. Lee Filter Cotton is our high quality grade for filtering purposes. In rolls, 12 inches wide, half-pound and pound sizes.

SEDIMENT TESTER DISKS

For creamery use in testing milk for sediment. In 4 sizes, 1, 1 1/2, 1 3/4, 1 7/8-inch diameters. In cartons of 100 disks, 10 cartons to a box.

1 1/2, 1 3/4-inch diameters. In cartons of 100 disks, 10 cartons to a box.

SEDIMENT TESTER DISK CARDS

Identification cards for sediment disks to record for milk producers the amount of dirt in one pint of milk tested. In individual glassine envelopes, 100 cards in a carton, 5 cartons to a box.

BLEACHED FLANNEL SQUARES

Our Bleached Flannel Squares will withstand the pressure of a continuous flow of milk without tearing. Adaptable to all types of strainers for gravity filtration. In all sizes.

Samples of any Johnson & Johnson Dairy Filter Products will be gladly sent upon request. If you cannot obtain Johnson & Johnson Filter Products from your regular source of supply, write to us for a price list.

Philadelphia Inter-State Dairy Council

The various departments are at your service and will assist you in planning

EDUCATIONAL ENTERTAINMENT

for your Community, Local or Club Meetings. Lecturers, Speakers, Motion Pictures, Lantern Slides, Etc.

C. I. COHEE; Sec'y, 219 North Broad Street, PHILADELPHIA



Penn Yan, N. Y.
Will you please send me a box of O. H. Cow-Tone for which I am enclosing check? It is the best and only thing that I can get for my cows that seems to be worth the money.
—G.S.F.

Thousands regard Cow-Tone as the most successful of all preparations on the market for milk producing cows. As a master tonic, merit alone has sold Cow-Tone for more than thirty years. Buy a box today from your dealer or we will mail postpaid, direct to you.

Cow-Tone is sold at grain, drug, and general stores: 50c, \$1.00, \$4.50 and \$7.00. Money will be refunded if it proves unsatisfactory. Other products include Cows' Relief Ointment, 50c and \$1.00 and Coloss' Cordial 50c.

OUR HUSBANDS CO.
LYNDON, VERMONT

COW-TONE

This is the time of year when cows should be given the most careful attention. Keep some Cow-Tone on hand and feed it daily to your herd.

Especially in winter the information in our new Cow-Tone Book will be appreciated by dairymen. If you have not received a copy, write for it today. It is free.

Name.....
Address..... PR

NICE

THE NAME TO GO BY—WHEN YOU GO TO BUY PAINT AND VARNISHES
Write for Color Cards and Booklet "Paint Pointers"
EUGENE E. NICE COMPANY, Inc., PHILADELPHIA

THE ONLY PEOPLE WE CAN'T PLEASE ARE THOSE WHO WON'T BUY

A. C. JONES' Barred Rocks and S. C. W. Leghorn
BABY CHICKS

A. C. JONES POULTRY FARM and HATCHERY DOVER, DELAWARE

LIVESTOCK LOVES LEGUMES LEGUMES LOVE LIME
SWEETEN YOUR SOIL WITH **LIME-MARL**
Legumes, grain, grass, truck—on any crop or soil that needs lime, LIME-MARL will pay you best. Use it for bigger profit at harvest time. It is ideal for agriculture purposes. Write for free booklet and delivered prices.
NATURAL LIME-MARL CO., ROANOKE, VA.
(2 PLANTS ON R. & O. R.R.)

Canadians Drink Pint of Milk Daily

Canadians drink nearly 100 per cent more milk than they did in 1921. The per capita consumption is about one pint per day, or 470.8 pounds per year, compared with about one-half pint per head of population in 1921. The milk consumption in the United States is about 458 pounds per capita per year or less than a pint per day per person. Canadians eat more butter than the people of any other country in the world—29.31 pounds per capita per annum—an increase from 25.79 pounds since 1921. Their appetite for ice cream has increased from 5.26 pints in 1921 to 7.04 pints in 1928 and the per capita consumption of cheese has risen from 2.51 pounds in 1921 to 3.54 pounds.

Officials of the Dairy Branch of the Canadian Government Department of Agriculture say that the increasing per capita consumption of dairy products in Canada has in part been due not only to a more general knowledge of the value of such products as foods, but to their value as aids to health and as preventatives of deficiency diseases. Improved quality and greater uniformity of cheese and butter, the increased quantity of package cheese being offered to the consuming public, the improved quality in milk supplied for direct consumption, more advertising on the part of manufacturers and distributors, and increased tourist traffic in Canada have all tended to increase per capita consumption.

Southern New Jersey Dairymen Make Tour

Some twenty-five Cape May County, New Jersey dairymen made an interesting visit to a number of dairy farms in Salem County, New Jersey, early last month.

County agent, George I. Ball, met the groups and conducted the tour to the various points of inspection. Among others the party visited the Quinton Stock Farm, that of Roy C. Patrick and that of Paul Kremme, at Monroeville; James J. Pettit of Mannington Township, showed his high producing herd of Guernsey cows, while the farms of Joseph Featherer, John Shinip and Robert Waddington were also visited.

It was generally agreed that the trip was one of exceptional interest and highly profitable to those who were among the party.

32,450 Cows Tested In 88 Associations

With 88 cow testing associations in Pennsylvania, in operation at the end of 1929, this dairy improvement work showed a gain of 12 organizations over the previous year, it is reported by C. R. Gearhart, state supervisor of testing at the Pennsylvania State College.

Dairymen testing their cows numbered 2,308, an increase of 295 over the 1928 figure, and the number of cows increased from 28,192 to 32,450, a gain of 4,268.

During the year 2,487 unprofitable cows were detected by the tests and weeded out for not paying their board. Further improvement of herds was accomplished by the elimination of 40 scrub bulls and the purchase of 267 purebred sires.

An exceptionally high number of cows averaged more than 40 pounds of butterfat a month during the year. Gearhart's report showing 35,312 monthly records of 40 pounds or more. The records also reveal that there were 46,792 monthly marks of more than 1,000 pounds of milk per cow.

Figures are now being compiled on the number of herds exceeding 300 pounds of butterfat per cow for the year. At the State Farm Products Show last year 725 awards were made for such records.

Guernseys

Tried herd sires, young show and breeding bulls, bull calves, imported cows, A.R. cows, cows, bred and open heifers of the best breeding, accredited and blood tested at reasonable prices. Several hundred head to pick from. Send for sales lists.

Also the best in registered and high-grade Holsteins, Ayreshires, Brown Swiss, Jerseys, Milking Shorthorns, all ages, both sexes and accredited.

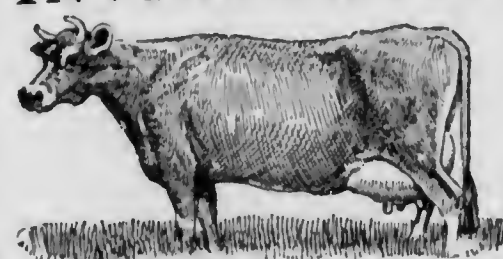
Reg. Devon Cows, bulls, heifers, bull and heifer calves, Devon oxen.

All breeds of registered sheep priced from \$40. to \$50. per head. Two carloads of high-grade Guernsey nearby springers, accredited and blood tested.

Write your wants.

LEWIS H. FURGASON
Box 326
WINDHAM, N. Y.

INVIGORATOR



Dr. Daniels' Cow Conditioner

THE NEW MINERAL TONIC
Less Weakness More Milk
Better Cows and More Profit
Prevent the run-down conditions of winter by giving this new MINERAL TONIC in the feed.
HEALTHY FOR YOUR COW IS THE SECRET OF PROFIT
Send for Free Samples

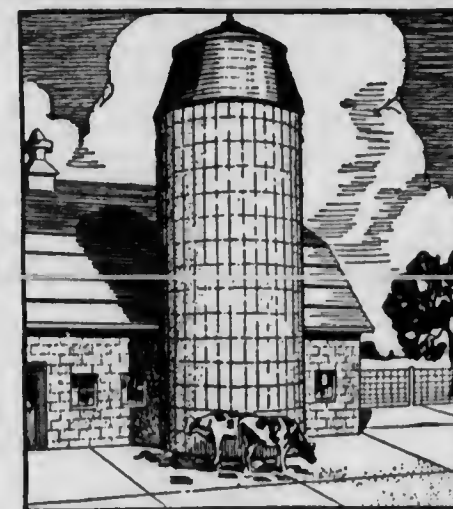
DR. DANIELS' UDERKREAM
For Cow Bag and Teats
Dr. A. C. DANIELS, Inc.
172 MILK ST., BOSTON

Clip and Groom Your Cows During Stable Months—It Means CLEANER and BETTER MILK
Clipped and Groomed Cows are clean and comfortable and keep dirt out of the milk pail. Clipping and Grooming improve the health of your Live Stock. Gillette Portable Electric Clipping and Grooming Machines Operate on the Light Circuit furnished by any Electric Power Co., or on any make of Farm Lighting Plant. PRICE LIST ON REQUEST

GILLETTE CLIPPING MACHINE CO.
129 West 31st St., Dept. 14, New York, N. Y.
45 Years Making Reliable Clipping and Grooming Machines.

FOR SALE—"SELECT DAIRY ALFALFA" Clover, Timothy and Clover Mixed. Delivered prices quoted. Prompt shipment. JOHN DEVLIN HAY CO., 192 N. Clark Street, Chicago, Illinois.

June Pastures in January



Silage is a winter feed fully as succulent and palatable as that in June pastures.

Eleven per cent More Milk—build a Concrete Silo

Tests at the Vermont Experiment Station showed that a ration including silage produced 11 per cent more milk than the same amount of dry corn fodder.

More milk during season of peak prices means more profit.

Portland Cement Association

1315 Walnut St.
PHILADELPHIA

Please send me your free booklet on "Concrete Silos."

Name.....

St. Address (or R. F. D.).....

City.....

State.....

Moving Large Trees

Moving large trees was once regarded as being so difficult that it was seldom attempted, but by the use of modern equipment and the exercise of care, it can be done successfully, says the United States Department of Agriculture. The same attention to details is required as is needed in moving smaller plants, but because of the greater weight to be moved and the longer time required, both in preparation and moving, much greater attention to details is necessary.

Among the essentials for successful transplanting are a good tree, including a well-developed root system and a healthy top; moving at the proper season: Deciduous trees while dormant, evergreens when the ground is sufficiently warm and moist to stimulate the plant to the immediate formation of roots; properly dug trees with the roots well protected from the time the soil is first removed until replanted; an adequate hole; the tree properly set and the soil sufficiently firmed; the top properly pruned; and the soil properly watered until the tree is re-established.

With the use of derricks, trucks, and an abundance of protection for the bark and roots, the mechanical difficulties of moving large trees have been greatly reduced.

PHILADELPHIA WOOD SILOS in CONCRETE
Reliable for past 30 years.
WOOD TANKS
BROODER HOUSES
DAIRY BARN EQUIPMENTS
Free catalog. Special prices now.
E. F. SCHLICHTER CO.
10 S. 18th St. Philadelphia, Pa.

Extension Work Improves 247,021 Farm Practices

Exceeding every previous year, the agricultural and home economics extension workers of the Pennsylvania State College brought about the adoption of 247,021 improved farm and home practices during the past year. J. M. Fry, acting director, reports.

A gain of more than 10,000 practices was achieved, comparison with the figures of 1928 shows. In that year there were 236,876 improved practices adopted. In 1927 the total was 222,235. The average for the 65 counties conducting organized extension work in the state during 1929 was 3,800 per county.

Leading all other lines of work in the number of adopted practices was dairy husbandry, which reported 42,782. Home economics came next with 39,565 practices adopted. The third most popular line of work was agronomy, or farm crops, showing 26,522 improved farm practices.

Practices adopted in other lines of work are as follows: Plant pathology, 25,212; entomology, 20,947; poultry husbandry, 16,919; animal husbandry, 14,464; agricultural economics, 9,462; fruit growing, 7,108; farm forestry, 6,892; vegetable gardening, 5,726; landscape architecture, 5,598; rural sociology, 4,392; farm management, 4,211, and general work, 10,093.

To Find Cow's Efficiency

Twelve cows are being used by the Institute of Animal Nutrition at State College in an experiment to determine the efficiency of the cow in changing feed into milk.

If YOU OWN ONE COW OR A HUNDRED

You should have a copy of this new, illustrated 36-page book, "Successful Dairying". The information in any one chapter may start you on the road to dairy prosperity. Yet "Successful Dairying" is FREE.

Write for Your Copy Today

The American Jersey Cattle Club

324-K West 23rd Street New York, N. Y.

FOR SALE — HOLSTEINS

(PURE BREDS) By (GRADES)

Bradford County Co-Operative Holstein-Friesian Association

Through this county Association, there is now available desirable fresh cows and springers, pure breds and grades, also young stock, both sexes. Transportation in county and assistance in purchase and shipment furnished if desired. For complete details apply to

J. G. KERRICK, Sales Manager

TOWANDA, PA.



100 Real Dairy Cows 100

For sale at all times. Tuberculin tested Holsteins, Guernseys and Jerseys. Real Milk Producers. Carload lots a specialty. Priced to sell.

See or Write:

JACOB ZLOTKIN

Phone 330 FREEHOLD, N. J.

Pay Cash and Pay Less

The early order earns the largest cash discount. Save most by ordering your Unadilla Silo Now!

Don't wait! Remember the Unadilla is the most popular silo in the east—the most durable, efficient and safest.

Write today for free catalog and terms.
UNADILLA SILO CO.
Box D Unadilla, N. Y.

UNADILLA SILOS

High Grade Dairy Cows

in HIGHTSTOWN, N. J.

We handle all kinds of cattle

Holsteins—Guernseys—Jerseys
A Specialty

All cows tuberculin tested and sold subject to a 60 or 90 day retest and fully guaranteed in every respect.

Free delivery any distance.

B. ZAITZ & SON

202 Mercer Street
Phone 72 Hightstown, N. J.



Let Us Design Your Stationery

Horace F. Temple
Printer

Bell Phone No. 1
WEST CHESTER, PA.

PAPER YOUR HOME

for 90¢ PER ROOM
You can paper the average room with high-grade artistic wall paper for as little as 90 cents—by buying direct at lowest wholesale prices. Send for big free catalog. Not the usual small mail order catalog but large book showing scores of artistic designs for celling and borders as well as walls. Write today.
PENN WALL PAPER MILLS
Dept. A Philadelphia, Pa.

WE BUILD

Lime & Fertilizer Spreaders
Mash Feeders, Radio Stands

Two-Wheel Wheelbarrows for Boys
Send for Circular and Price
J. S. GREENLEAF, ANSON, ME.

"It Certainly Does a Fine Job of Milking"—Says Virginia Dairyman



This shows the De Laval Magnetic Milker installed in the modern dairy of D. French Slaughter at Culpeper, Va. Mr. Slaughter is enthusiastic about the splendid milking job that it performs.



Mr. Slaughter also uses a De Laval Pressure Cleaning and Sterilizing Device as an aid in keeping his milker clean and sterile at all times. The Alpha Power Plant may also be seen.

ONE of the outstanding dairymen of this section is Mr. D. French Slaughter whose dairy is located at Culpeper, Va. The milk produced by this dairy is bought and consumed in Washington. Every effort is made to produce as high a grade of milk as possible and bacterial counts are closely watched.

A De Laval Magnetic Milker is used at this Virginia dairy and Mr. Slaughter writes as follows concerning it:

"I wish to say that I am well pleased with the De Laval Magnetic Milker. It certainly does a fine job of milking and the cows like its action as evidenced by their production in milk. I have no trouble keeping it clean, especially with your Pressure System. My milk goes to the Washington, D. C., market. The Alpha Dairy Power Plant is a highly satisfactory source of power.

"My father before me knew and appreciated the real value of De Laval equipment and it is quite natural that I should feel the same way. The De Laval Magnetic is in a class by itself."

THE DE LAVAL SEPARATOR COMPANY
New York, N. Y., 165 Broadway
Chicago, Ill., 600 Jackson Blvd.
San Francisco, Cal., 61 Beale St.

Please send me information on the following De Laval products which I have checked:

- ☐ Magnetic Milker
- ☐ Utility Milker
- ☐ Utility Single Unit
- ☐ Utility Double Unit
- ☐ Alpha Dairy Power Plant
- ☐ Solution Rack
- ☐ Golden Series Separator
- ☐ Utility Series Separator
- ☐ Junior Series Separator
- ☐ Europa Series Separator
- ☐ De Laval Oil

I milk.....cows.

Name.....State.....

P. O.....

Send the
Coupon for
Complete
Information

DE LAVAL PRODUCTS

GOLDEN SERIES SEPARATOR

The world's best separator; skims creamers, suits easier, lasts longer. Seven sizes. Hand, belt or electric drive.

UTILITY SEPARATOR

Just like the "Golden Series" except for several non-essential features. Sells for less. Three sizes. Hand, belt or electric drive.

JUNIOR SEPARATOR

A quality line of small separators—wonderful skimmers. Three sizes. Hand drive.

EUROPA SEPARATOR

A line of low priced European made De Laval Separators. Four sizes. Hand drive.

MAGNETIC MILKER

The world's best milker. Pulsations controlled by magnetic force give perfect, uniform milking. Easy to operate, easy to clean. Operated by gas engine or electric motor. Outfits for one to 1000 or more cows.

UTILITY MILKER

UTILITY UNIT

For the low price field. The best milker of its kind. Outfits for milking one to 30 cows.

UTILITY Double UNIT

Works on any single pipe line milker installation. Does splendid work.

UTILITY Double UNIT

Works on any single pipe line milker installation. The best double unit made.

ALPHA DAIRY POWER PLANT

Built like an automobile engine. Provides economical power for milker and separator. Heats 4 1/2 gal. tons of water for cleaning.

SOLUTION RACK

Keeps milker test-cups sterile between milkings. Solution used only once so it is always full strength.

DE LAVAL OIL

Makes separators run easier and last longer. Specially made. Two kinds—red label, hand separator oil; green label, milker pulso-pump oil.

Milk Producers

ISSUED MONTHLY IN THE INTEREST OF THE DAIRY FARMER BY THE

Vol. X

West Chester, Pa., and Philadelphia,

No. 12

Dairy Council Advisory Board Holds Meeting

The tenth annual meeting of the Advisory Board of the Philadelphia Inter-State Dairy Council was held in the Council offices on April 2nd, 1930.

The group which consisted largely of authorities and educators in the territory in which the Council operates, and numbered, with the council officers and directors, upwards of one hundred, was presented with a general outline of the program and problems for future development of health educational work. Brief reports as to some of the Council work during the past year was also presented.

The meeting was opened by a brief address by Dr. Clyde L. King, president of the Council, who introduced Mr. C. I. Cohee, secretary of the organization, who introduced the various speakers and announced the various demonstrations.

Dr. E. G. Lechner, Assistant Director of the Quality Control Department, outlined briefly the relationship of the Dairy Council in the improvement of the milk supply. He stressed the recent activities of the Pennsylvania Department of Health in connection with the new state wide Milk Code and the development of new regulations by the Philadelphia Board of Health. Many local Boards of Health were either revising present milk codes or preparing new ones to conform with those of the State of Pennsylvania. He also spoke of the increasing activity of bacteriological work in connection with the general milk supply.

F. R. Ealy, assistant secretary of the Council, made an address on the "Future Development of Bacteria Control."

Mr. Ealy described the various methods used in the counting of bacteria in the milk supply, the scope of the work done last year and the problems for the future. Four important factors are considered: first, the sediment test; second, the necessity of maintaining low milk temperatures; third, the avoidance of unsatisfactory odors; and fourth, the use of satisfactory methods for determining the amount of bacteria in the milk.

The Nutrition Department program was outlined by Miss Mary M. Forman, who spoke on the program and plans being used in connection with health work in the city Health Centers. Dr. Hannah McK. Lyons, also addressed the gathering on the "Methods of Teaching Nutrition Class Mothers the Use of Dairy Products." Much of this work requires special treatment as to a considerable extent, work is with foreign language speaking people. Food demonstrations have proven to be a most effective way in getting the message over.

The Dramatic Department, the scope of which was outlined by Del Rose Macan, presented a number of its newest health plays. These included: "Patter Protectors," a story presented by Miss Florence Wilson and a slide talk, "The Circus," by Miss Frances Hoag.

Charles Summer of the National Dairy Council, presented the development of exhibit material of the National Dairy Council, while Miss Louise Everets and W. S. Holmes, of the Dairy Council presented the new National presentation, "Butter Late Than Never."

Robert W. Balderston, former secretary (Continued on page 13)

MANY FARMERS

ARE DOING THEIR SHARE

Toward Reducing the Butter Surplus

HAVE YOU DONE YOURS?

Total Stocks of Butter
Remain High

THIS HAS AN UNFAVORABLE INFLUENCE
ON PRICES OF DAIRY
PRODUCTS

THE TIME IS NOW

CONSUME YOUR SHARE OF THE
BUTTER SURPLUS
AND STABILIZE YOUR MARKET

Butter Is Cheap—Use More of It

BUTTER IS AN IMPORTANT
FACTOR IN YOUR DIET AND
THAT OF YOUR FAMILY

Inter-State Directors Hold Bi-monthly Meeting

The regular bi-monthly meeting of the Board of Directors of the Inter-State Milk Producers' Association, was held at the associations headquarters, in Philadelphia, Pa., on March 11th and 12th.

The officers and directors attending the meetings included: H. D. Allebach, President; Frederick Shangle, Vice President; Robert F. Brinton, Treasurer; F. M. Twining, assistant-treasurer; I. R. Zollers, secretary; A. A. Miller, assistant secretary, and the following directors: S. K. Andrews, J. H. Bennet; Ira J. Book, E. H. Donovan, J. W. Keith, S. Blaine Lehman, I. V. Otto, J. A. Poorbaugh, C. F. Preston, Albert Sarig, C. C. Tallman, R. I. Tussey, H. B. Stewart, S. U. Troutman, A. B. Waddington and F. P. Willis.

The minutes of the previous directors meeting, as well as the minutes of the various meetings of the executive committee of the Board, were read and approved. The report of the treasurer was also presented by Robert F. Brinton, and approved.

F. M. Twining, director of the Field and Test Department made a report on the activities of that department, since the last meeting. C. I. Cohee, secretary of the Dairy Council reported on the activities of the Quality Control Department of the Council. He also presented data showing the statistical position of milk production, etc., on the dairy farms in the association territory.

H. D. Allebach briefly outlined market conditions. Indications pointed, he said to slightly better conditions regarding production. Consumption however remains unsatisfactory, owing to the lessened employment of labor. While the producers have slightly reduced the production, the continued decline in consumption, leaves us with a relatively high percentage of surplus milk. This condition appears to be general throughout the country and the relative prices of dairy products generally have been extremely low. It is difficult to forecast the future not only from the standpoint of production, but also from that of consumption. On the whole the situation is in a rather critical stage.

Annual Meeting

Following a general discussion, the date for the 1930 annual meeting of the association was set for Tuesday and Wednesday, November 18th and 19th.

It was also approved that the number of delegates allotted to the local units, whose transportation would be paid for, as heretofore, by the association, would be as follows:

One delegate from each local having a membership up to 200 and a second delegate from such local as have 201 members or more. It was further agreed that locals, to be represented by delegates, under this plan, must have at least 25 members.

Field Conditions

Reports from each of the attending directors followed. There were more or less general reports of shortages of hay, although production was being maintained on a fairly even basis. Testing cattle for tuberculosis was proceeding actively in some sections. There was less general opposition to the program.

(Continued on page 12)

Abortion Losses Can Be Reduced

"Cures" Are a Waste of Money—Check Disease by Careful Sanitation and Isolation, Says Dr. Metzger

The purchase of any drug or stock tonic to be used as an abortion cure is a waste of money; there is no known cure for abortion, according to Dr. H. J. Metzger of Cornell University.

Dairymen will not pay what most abortion "cures" cost until a large number of cows have aborted. By that time the cows may have built up enough resistance to have the disease nearly checked, and if the abortions stop the next year the immunity did the work but the "cure" gets the credit.

The resistance to the disease is what makes it possible for a cow to abort one year and freshen normally the following year. Sometimes a serious outbreak will almost entirely disappear the following year. It disappears only as far as noticeable symptoms are concerned; many of the cows continue to carry and spread the disease when they freshen.

Selling every cow immediately after she aborts can not be recommended, because many infected cows freshen normally and spread the disease the same as if they had aborted. Some of these cows will continue to do this as long as they live and they can not be detected except by the blood test. To sell the aborters and keep such cows is only half doing the job. A large percentage freshen normally the next year and will be profitable producers the rest of their life. When replacements are purchased, there is no assurance that the new cows are better or that they will not abort.

Dr. Metzger suggests that breeders who are unable to use the blood test to eradicate the disease can reduce their losses by careful practices. Isolate every aborting animal. If possible have a maternity stall with a concrete floor and clean and disinfect it thoroughly. Raise all replacements on the farm except the herd sire. Research shows that heifers born of an aborting dam have the infection at birth, but by the seventh or eighth month the infection generally leaves. After breeding, they become highly susceptible. Everything should be done to guard the bred heifer from taking the infection into her system. This means watching things not only in the barn but while on pasture.

All cows and heifers should be pastured separately from all outside stock. One aborting animal will often infect all bred animals in the pasture. For replacements, some dairymen are buying four and five-year-old cows hoping that they have had abortion. Generally such cows are not as susceptible to the infection as heifers. Two bulletins discussing the subject more fully are available on request to the mailing room at the New York state college of Agriculture, Ithica, N. Y. Ask for Bulletins E-137, the Bang Abortion Disease in Cattle, and E-182, Reducing Losses from the Bang Abortion Disease.

Miniature Farms

Government officials estimate that there are 5,000 farms of less than 3 acres in this country to which individuals gave their entire time last year. In taking the 1930 agricultural census, areas of less than 3 acres will not be listed as farms unless they produced as much as \$250 worth of farm products in 1929. Small areas of more than 3 acres will be classed as farms regardless of the value of products if the land is actually being farmed.

Butter Is Really Economical

By Lorraine Gutz

No longer does Father need to open the table conversation with the old-time caution of "Go easy on the butter, boys, it's fifty cents a pound." That bit of advice is now substituted by "Help yourself to more butter, folks," which is, both from the economy and health standpoint, a much more practical suggestion for Father to make. Whether he is buying shoes for the youngest member of the household or an automobile for the enjoyment of all, Father is always interested in getting the most for his money. And rightfully so, especially when he is purchasing the foods which play an important part in determining the well-being of his family.

When the problem of buying the most economical food fat confronts Father or Mother or the one who pulls the family purse strings, food authorities agree in favor of butter. From the point of flavor, we all know that butter is unequalled. When used as a spread on bread, toast, muffins, wheat cakes and all the other good things which are served—butter makes the flavor distinctive. The secret of Southern cookery, famous since Colonial days, lies in the liberal use of butter. In supplying butter—plenty of it—Father knows.

Not only is the use of butter fat an economy because of its delicious flavor, but because of its unique growth-promoting power. No other fat contains Vitamin A, the growth vitamin, in such abundance as does butter fat. It is the most practical year 'round source of this vitamin. When butter is eaten regularly over a long period of time, this vitamin A is stored in the body and builds up resistance to disease. Butter furnishes the best and most economical reserve supply of this vitamin.

There are still other reasons why Father is right in choosing butter as the most economical food fat for his family. It is rich in Vitamin D, which builds strong bones and teeth and good muscle. Aside from all these things, butter is an excellent fund of energy—it is almost one hundred per cent. digestible. There is no other fat on the market which can boast of these health and flavor qualities of butter. When we consider the "wealth" of a pound of butter contains, we must echo Father's "Help yourself to more butter, folks!"

American Institute of Cooperation

The Sixth Annual Session of the American Institute of Cooperation, will be held June 16th to July 23rd, 1930, at the Ohio State University, Columbus, Ohio. According to recent announcements of Charles W. Holman, secretary of the Institute. He also states that it will be the outstanding gathering of the cooperative leaders in the Western Hemisphere, during the year.

The Institute is open to everyone interested in agricultural co-operation. The general sessions are attended by managers and officials of cooperative organizations, research workers, teachers and students of cooperation, county agents, vocational teachers and others. Persons taking the academic courses, however, must be able to show proper preparation, according to the qualifications listed in each course. Those not seeking university credits need no previous preparation. No charge is made to those attending the Institute general sessions.

For full information regarding the general program of the session as well as details as to the academic courses, write to Charles W. Holman, secretary, 1731 Eye Street, N. W. Washington, D. C.

Pasture Rotation on the Dairy Farm

By C. B. BENDER
Assistant Dairy Husbandman
Rutgers, N. J.

Any dairyman who has good pasture can increase the value of that pasture by dividing it into smaller units and using the rotation system of management. The size and number of units depend on the size of the herd. For example, a herd of 20 milking cows and 8 yearlings and calves would need approximately 21 acres of permanent pasture. Thus acreage should be divided into seven plots of approximately three acres each.

As soon as the grass in one of the plots is about four inches high the milking cows should be turned in on that plot. The heifers can be put in one of the others. The cows can be run in this plot for from three to five days or until they have to move around too much in order to get enough. The cows are then driven to another plot and the heifers and dry cows are moved to the plot just vacated by the milking cows. These heifers and dry cows should always follow the milking cows in grazing the various plots.

If the grass in any plot shows that it will be heading before the cows can pasture it, it should be mowed and either made into hay or left on the ground. Grass coming into maturity will cut down the yield of the plots tremendously.

The milking cows getting the first bite of the pasture when it is four to five inches tall will be getting food which is extremely palatable and which has a protein content in the dry matter of from 12 to 18 per cent. This rotation of the plots should in a normal season, provide sufficient good pasture.

Fertilization with superphosphate and nitrogen will increase the yield and also the protein content of grasses. When this is done, the carrying capacity of the plots will be increased.

Index of Farm Activities in New Jersey

New Jersey farmers will spend more than \$32,000,000 for four items alone in their operations this year, Secretary of Agriculture, William B. Duryee told members of the State Board of Agriculture at their regular meeting held in Trenton on March 18th. These four items are feeds, fertilizers, seed potatoes and milk cows. For hired farm labor it is estimated that the cost this year will be \$19,000,000.

It is expected that the receipts of New Jersey farmers from the sale of dairy products will exceed \$17,000,000; from baby chicks, \$4,500,000; and from fruits and vegetables more than \$30,000,000. In addition grain crops, white and sweet potatoes, poultry products, hay, etc., will bring the total receipts to the farmers of the state to approximately \$100,000,000.

Other matters reported to the State Board by Secretary Duryee included plans that are in progress for three state-wide surveys that will aid in rural improvement. A study of the activities of township committees will be made to show what many of them are doing along various lines and the possibilities for improvement in many sections of the state. This survey is being made at the request of the New Jersey Federation of County Boards of Agriculture and the data will be turned over to that organization upon completion.

A statistical study of the fruit industry of the state will be made by the State Department in cooperation with the United States Department of Agriculture and the New Jersey State Horticultural Society. It will show the number of trees of various ages and varieties of peaches and apples and other pertinent data that will enable the growers to plan their future operations intelligently.

Corn Borer Research Program Adopted at Recent Conference

A research program which includes every phase of corn borer control for the United States and Canada was adopted at the fourth annual conference of corn borer interests held recently in Washington, D. C. Nearly 70 representatives from the corn borer infested States and the Corn Belt attended the conference.

Dr. A. F. Woods, Director of Scientific Work, U. S. Department of Agriculture, served as chairman of the conference. In opening the meeting he explained the purpose of the conference was to provide for a complete co-ordination of the various corn borer research projects, both Federal and State, to arrange for desirable repetition of experiments and to prevent unnecessary duplication of experimental work.

H. G. Crawford, of the Dominion Department of Agriculture, represented Canada at the conference and spoke briefly of plans for corn borer control in Canada during 1930. Other speakers represented the six bureaus of the Department of Agriculture which are conducting definite research work in corn borer control. These bureaus include: Entomology, Plant Industry, Animal Industry, Chemistry and Soils, Public Roads, and Agricultural Economics. In addition, speakers from Illinois, Indiana, Michigan, Ohio, Pennsylvania, New York and New Hampshire told of the work in progress in their States.

Spread of the corn borer for the past year, according to Dr. W. H. Larrimer, entomologist in charge of corn borer research for the Bureau of Entomology, has had a southward trend, and can be considered normal in extent. A spread of 20 to 30 miles a year is expected, he said.

The entire area now known to be infested includes the southern portion of Quebec and Ontario, as well as certain localities in New Brunswick and Nova Scotia, in Canada; the southern two-thirds of New England, the northern extremity of New Jersey; all of New York; three-fourths of Pennsylvania and Ohio; the panhandle of West Virginia; nearly all of the agricultural portion of Michigan; and the northeastern portion of Indiana.

Penn State Provides New Cow With Window

Penn State has provided a successor for Jessie, the famous cow with the window in her stomach. An operation performed by Doctor J. F. Shigley, college veterinarian, by which a permanent fistula was placed in the left side of the rumen, or first stomach, of a Holstein cow, Penn State Jessie II, has been pronounced successful.

Important bacteriological studies interrupted by Penn State Jessie's untimely death, will now be continued by Professor R. P. Tittler, of the agricultural experiment station staff. He is especially interested in studying the digesting bacteria and cellulose fermentation. Tittler also wants to know what will happen when various salts are added to the ration of Jessie the Second.

In the work done with Penn State Jessie it was found that 90 per cent of the bacteria in her rumen were of a new type. These were named Flavobacterium vitrum by Professor M. H. Knutsen. Later tests proved that these organisms manufactured vitamin B when this substance was omitted from the cow's ration. Then when substitutions and additions were made in the feed the bacterial picture changed remarkably.

Suggestions For the Improvement of Dairy Barns in the Southeastern Section of Pennsylvania

By M. G. Betts, Architect, and M. A. R. Kelley, Assistant Engineer, Bureau of Public Roads
U. S. Department of Agriculture

(Continued from last month)

Suggested Remodeling of a Barn

No two of these old barns are exactly alike as to size, construction, contents or surrounding conditions so that recommendations for the remodeling of one will not apply entirely to another. Yet, suggestions applicable to one set of conditions should be valuable to one considering the remodeling of his own barn. It is with this in mind that the conditions existing in a particular barn, Plate 8-B, and suggestions for remodeling to meet the requirements of the owner, are presented. The result is not ideal, but is a great improvement on the present conditions and should enable the owner to produce more and better milk from healthier cows and at less cost for labor in cleaning and feeding.

Since the owner, for the present, will not require additional hay storage and is limited as to funds, he will retain the use of the mow driveway and will make no change in the roof framing which is practically the same as that shown in Figure 12. The present arrangement of the stable is shown in Figure 14. The herd is to be

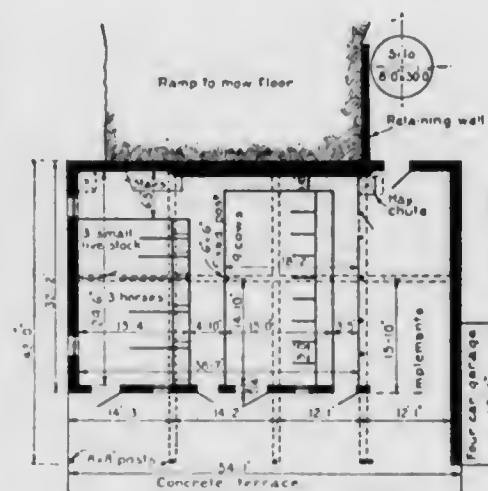


Figure 14. Plan of existing dairy stable which is to be remodeled.

increased by three cows and the horses are to be reduced in number. By rearrangement the present stables space is sufficient so that, although to obtain better lighting it would be desirable to enclose the space under the overhang and to remove the brick wall, substituting posts and girder, the expense would hardly be warranted. The proposed remodeling is shown in Figure 15.

The ceiling of the stable is lower than is desirable since with the added dairy stock the volume of air space is very little in excess of the 500 cubic feet per cow which in many States having regulations, is the minimum requirement. In some States 600 cubic feet is the minimum. The headroom could be increased, thus improving both the air conditions and the lighting, but it would be necessary to raise the superstructure of the barn about 18 inches, since the ground south of the barn is level and the additional height could not be gained by lowering the floor. In view of the small number of stock to be housed the expense of raising the ceiling would not be warranted.

Like most of the old bank barns of the section the overhang is on the south side which, if the sunlight is not obstructed, is the best exposure. As the overhang is to remain it is desirable that the cows be placed at the west end which has the next best exposure. By installing additional windows at this end the lighting of the cow stall will be greatly improved.

It will be noted that one of the posts supporting the longitudinal girder in the

old plan would obstruct the feed alley in front of the horse stalls of the new plan. This is overcome by inserting new posts with a short cross beam under the large girder somewhat as shown in Plate 6-B. In the new arrangement the cow stalls are a little wider than necessary owing to the location of the supporting posts. An additional stall could be had in the inner row by reducing the width of the stalls, support for the girder being provided as at the horse stalls.

The rearrangement of stalls necessitates the moving of the partition between the stable and implement shelter about one foot to the east, still permitting the operation of the sliding implement shelter door. Even with the space thus gained the litter alley between the cow stalls will be a little less in width than might be desired. It is also necessary to make changes in the door and window openings in the wall under the overhang. A window in the east wall will light the otherwise dark northeast corner.

One half of the double mow driveway should be abandoned, thus making it possible to excavate a part of the wide ramp and to insert a window in the bank wall, which will provide additional light and air circulation in this part of the stable.

The present hay chute, close by the door leading to the silo, should be changed to the location shown in the new plan so that the alley between the pen and the bank wall will be clear for feeding either hay or silage. In remodeling the cow stalls, which are but three feet wide, the present wooden box mangers and stall partitions would be discarded and new stall equipment, including water bowls, provided together with a concrete floor throughout. Owing to the low ceiling a litter carrier could not be installed in the litter alley, but the type of carrier having a detachable tub on wheels with an overhead track from the alley door to the manure pit would be a great convenience.

Because of the small volume of air space per head in the stable, ample ventilation is especially necessary. During mild weather fresh air may be admitted through the doors and windows. Fresh air intakes with automatic dampers, for use during cold weather, should be installed in the locations shown on the new plan. The outlet of the intake on the right and nearest the bank wall should direct the incoming air toward the wall so as to stimulate circulation at this point when the windows are closed.

The position of the west outtake shown in Figure 15 is determined by the location of the driveway above. The flue is placed so that it avoids the beams at the side of the driveway.

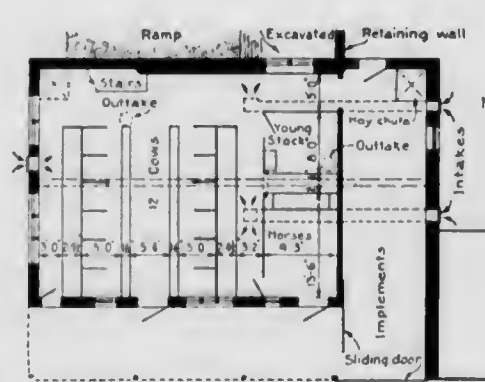


Figure 15. Suggested rearrangement of plan shown in Figure 14.

The changes suggested for this particular barn cannot all be applied to all barns of the kind, but the improvement is obvious

to anyone studying the two plans. This illustration of what can be done together with the preceding general suggestions should enable any one interested to take stock of the conditions existing in his own barn and to work out means of improving them. Where funds are limited it is well to make changes a step at a time, not waiting until all the work can be done at once. A dollar spent in improvements of this kind produces a continuous return in added convenience and saving of time and labor in doing the barn work and in the health of the stock.

New Barn Construction

When a barn that has been destroyed by fire or otherwise is replaced by a new structure the tendency is to use the old foundations and often the old methods of framing. The use of old foundations, if in good condition, saves expense but it generally means that the new barn is no better than the old so far as light—ventilation and arrangement are concerned. Changes such as suggested in preceding pages would make for improvement but it would be much better to build on entirely different plans, using perhaps a part of the old foundations or building on a new site.

When a new barn is to be erected on an old site, advantage should be taken of the opportunity to obtain more light and air on the north or bank side by setting the new structure 8 or 10 feet away from the old bank wall as shown in Figure 16. In

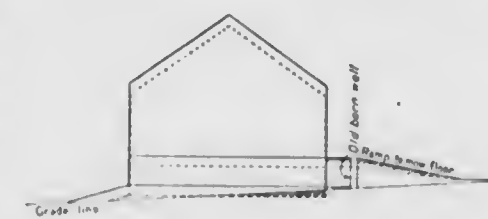


Figure 16. An instance of advantage to be gained in reconstruction on old site, through consideration of ground levels. Solid lines show the location and levels of new construction. Dotted lines show levels that might have been used.

planning such a change in location consideration should be given the grade levels in order to avoid the situation shown in the illustration which represents a condition observed in a number of instances where barns were rebuilt or enlarged.

When the new barn was built the old floor level was retained, making necessary a heavy inside fill of three or four feet at the south side of the stable. The earth for the fill had to be hauled from another site. Owing to the location of the barn lot on the south side of the arrangement of cow stalls, entrances on the south side were required. Because of the difference in levels steep ramps or runways for the stock, an undesirable feature, became necessary.

Had the floor level been lowered by excavating on the north side, as shown by the shaded area in the illustration, and the excavated earth used for filling on the south side, no hauling of earth would have been necessary and a very small ramp would have served at the south doorways. The driveway could have been graded to a lower grade, making an easier haul into the mow.

The extent to which the floor may be lowered, in such a case, depends upon the depth of the footings of such portion of the old walls as may be retained. Had the old walls been torn down and new footings and foundations provided the floor might have been placed at a still lower level. This would have been desirable had the

slope of the ground been greater or if a wider barn had been wanted.

Owing to the conformation of the land which is rolling and often quite hilly, a level site for the barn is not always available. If the building must be set into a slope or bank it is better, if the grades will permit, to face it with the long axis north and south and with the north end against the higher ground as shown in Figure 17. In this way all the stock will have sunlight during some part of the day and the whole of the stable may be well ventilated.

If the grades are such that outside entrances to the pens at the south end are not feasible, they may be omitted, and the pens entered from the cross alley. Or the pens may be floored at a lower level, thus avoiding some of the fill. If the pens are not needed they may of course be omitted. The barn may be shortened by 10 or 12 feet.

The hay mow may be filled from the high ground at the north end using modern hay handling equipment. If a sheltered driveway is desired the main roof may be extended as shown in the illustration. This permits of a smaller hay mow, since the usual mow drive is omitted, and saves the heavy floor construction required for a mow drive. The relation between the level of the drive and that of the mow floor will depend upon the slope of the ground which will also determine the amount of masonry work in the barn walls. The building should not be set so far into the bank as to cut off light and air at the sides of the north end of the stable.

It is a common practice of the region to stack corn near the barn to be husked as needed or as opportunity offers. In the arrangement shown the corn may be stacked to the north of the drive, and when husked, may be stored in a nearby crib or thrown through an opening in the drive wall to the feed alley or feed room below.

If for any reason the barn must be placed with the long axis parallel to a hillside the bank should be excavated only to the depth

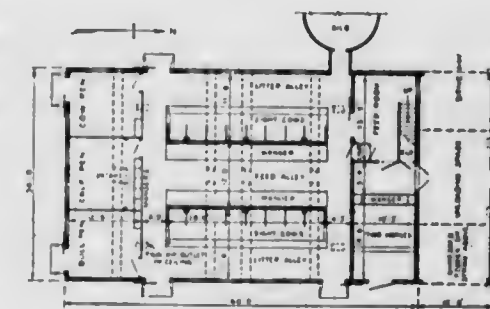


Figure 17. Plan of barn with the north end against a bank.

which will permit of light and air on the bank side of the stable as shown in Figure 5.

No one dairy barn plan will meet all the varied conditions to be found on the farms of this region. Figure 17 is based on a design, prepared in the Department of Agriculture, Washington, D. C., which with modifications, meets the general requirements of the average dairyman of the region under consideration. The building may be made longer or shorter and the interior arrangement may be changed to conform to the particular requirements of the individual owner. Complete working drawings of the design upon which these illustrations are based, together with a bill of materials, may be had upon application to the Division of Agricultural Engineering, Bureau of Public Roads, Washington, D. C.

THE END

INTER-STATE MILK PRODUCERS REVIEW

Official Organ of the
Inter-State Milk Producers' Association, Inc.
August A. Miller, Editor and
Business Manager
Frederick Shangle Advertising Manager
Published Monthly by the Inter-State Milk
Producers' Association, Inc.

Business Office
Flinn Building, 219 N. Broad St., Phila., Pa.
235 E. Gay St., West Chester, Pa.

Editorial and Advertising Office
Flinn Building, 219 N. Broad St., Phila., Pa.
Bell Phone, Locust 5391 Locust 5392
Keystone Phone, Race 5344

Printed by Horace F. Temple, Inc.
West Chester, Pa.

Subscription
50 cents a year in advance
Advertising rates on application

"Entered as second-class matter, June 3, 1920,
at the post office at West Chester, Pennsylvania,
under the Act of March 3, 1879."



The garlic and grassy milk production season is close at hand. In some sections it is already upon us.

Consumers won't buy or use milk that has a garlic, grass, or other off-flavor. To ship such milk means an economic loss for all parties concerned.

Stringent regulation regarding the shipment of such undesirable and unmarketable milk have been made by large co-operating buyers and it is up to the producer to keep milk that is grassy, garlicy, or off-flavor, in any way, off the market.

Careful experimental work should be done with herds which might have access to undesirable pasture. Observing careful feeding and production methods means dollars in your pocket. It's worth the effort.

During the closing weeks of March, the United States Senate finally passed a tariff bill fixing new import duties, not only on farm products but on many manufactured products as well.

In instances the rates approved by the Senate and House of Representatives, respectively, do not concur. A conference committee of members of both legislative bodies will now confer as to the adjustments to be made, which after approval by the Senate and House, will go to the President for approval.

In the various duties on dairy products, the two branches of the legislative bodies, were at variance on practically every dairy product and until the conference committee has completed its work no definite information as to the proposed new tariff rates will be available.

Butter—yes the butter question is still before us—we hear many reports of farmers, not only in the Philadelphia Milk Shed, but in other sections of the country as well, who have recently become more extensive consumers of butter and some it is occasionally reported have shifted their consumption from substitutes to real cows butter.

The butter situation is still an uncertain one—with the tremendous supply of storage butter on hand, practically four times that of a year ago, the increase in butter consumption must be general if early results are to be expected. There is, however, one ray of hope, and that is that dealers stocks have been maintained at a low level. This condition has some influence on the market and may be responsible for the small price variations in the daily market quotations.

Nevertheless the unusual surplus now in storage confronts us and must be moved. The quicker the better, as far as the mar-

ket, not only for butter, but for all dairy products is concerned.

At the current rate of consumption it may take some time for this situation to adjust itself. The only sure way to remedy the condition is for the consuming public to use more butter and to keep everlastingly at it until the situation becomes more normal.

April Milk Prices

Under agreement with co-operating buyers, the price to be paid for basic milk during April 1930 remains unchanged. Surplus milk during April 1930, will be paid for under the agreement of April 2nd, 1930, as will be noted below.

The price of basic milk, 3 per cent butterfat content, delivered at Philadelphia, will subject to market conditions, be \$2.71 per hundred pounds or 7.1 cents per quart.

The price of basic milk delivered at receiving stations in the 51-60 mile zone, 3 per cent butterfat content, will, subject to market conditions, be \$2.71 per hundred pounds, with the usual differentials and variations at other mileage points.

SURPLUS MILK

Surplus milk shipped during April, will be paid for by co-operating buyers, on the average price of 92 score butter, solid packed, New York City.

Have Too Many Dairy Cows

Dairymen face a period of readjustment. According to the 1930 agricultural outlook report, an annual increase of about one per cent, in milk cow numbers is necessary to meet consumption demands. In 1929 the number increased three per cent and there are six per cent more heifers than a year ago.

Surplus Milk Prices for April

Under agreement with co-operating buyers the surplus price to be paid for surplus milk in April, will be continued on the same basis as prevailed in February and March.

Surplus milk prices will therefore be paid for on the basis of four times the flat average price of 92 score, butter, solid packed, New York City, in April, 1930.

Statement of the ownership, management, circulation, etc., required by the Act of August 24, 1912, of the Inter-State Milk Producers' Review, published monthly at West Chester, Pa.

Editor, August A. Miller, Brookline, Delaware County, Pa.; Business Manager, August A. Miller, Brookline, Delaware County, Pa.; Advertising Manager, Frederick Shangle, Trenton, New Jersey; Publisher, Inter-State Milk Producers' Association, Philadelphia, Penna.

Owner: (If a corporation, give its name and the name and addresses of stockholders holding 1 per cent, or more of total amount of stock. If not a corporation give names and addresses of individual owners.) Inter-State Milk Producers' Association, 219 North Broad Street, Philadelphia, Pa.; H. D. Allebach, Trappe, Pa.; Fred Shangle, Trenton, N. J.; R. D. E. Nelson James, Rising Sun, Md.; E. H. Donovan, Brendford, Delaware; R. F. Brington, West Chester, Pa., and 21,600 others.

Known bond holders, mortgages and other securities holding 1 per cent, or more of total amount of bonds, mortgages, or other securities: (If there are none, so state). None.

Average number of copies of each issue of this publication sold or distributed through the mails or otherwise to paid subscribers during the six months preceding the date shown above. (This information is required from daily newspapers only).

AUGUST A. MILLER

Sworn to and subscribed before me this 1st day of April, 1930.

John A. L. von, Notary Public.

My commission expires March 6th, 1931.

MARKET CONDITIONS

H. D. ALLEBACH

Indications, on the whole, point toward a somewhat smaller productive rate but the supply in the Philadelphia Milk Shed still appears to be in excess of the consumer demand which does not entirely measure up to the full basic production.

This latter condition is probably due to the continued shortening of the demand, and in a large degree, to the decreased buying power owing to a large extent, to unsatisfactory labor employment.

This situation shows some indications of improvement but it will be some time before labor will get back into its usual buying program.

Surpluses of dairy products are high, and low prices prevail all along the line. Until these surpluses are absorbed we can look for little real stabilization in the whole price situation.

We believe that our recent reduction in the price of surplus milk in the Philadelphia Milk Shed has played some part in the recent productive rate.

At a conference recently held with our buyers, it was agreed that the surplus price of milk for April should be paid for on the same basis as prevailed during February and March. This decision was arrived at because of the continued low prices of butter and other dairy products, with which our surplus milk is in competition.

While this may appear to be a hardship on some of our producers, it will also serve to inform such producers that the production of such surpluses are a menace to our fluid milk price structure, particularly when it is considered that, owing to the unsatisfactory labor situation, consumption is still below par.

With the price of beef cattle at its present level, producers who have unprofitable cows in their herds have an excellent opportunity to dispose of such cows and now is the time to do it, as they cannot yield you a profit at present surplus milk prices. It is a good time to cull your herd and we hope our producers will take advantage of it.

For the last three months I have been stressing the importance of our producers in co-operating to help reduce the tremendous supplies of butter on the market. Butter in cold storage is at a very high level and while prices have been a trifle better during March, they are still very low in comparison with other years. Many of our producers have answered our appeals. Butter and more butter is being used by our farm folks and for the time being we will have to keep everlastingly at it. The butter in storage is some 46,513,000 pounds on March 1st, as compared to 11,910,000 pounds one year ago and 17,874,000 pounds, the five year average.

One of the difficulties appears to be the inability of some of our producers to obtain good butter in their own immediate districts. May I offer a suggestion? Why not have these farmers get together, go to their local grocery stores, insist on being supplied with good butter and if this does not bring the desired result, place a group order with some responsible dealer and obtain good butter on a co-operative or group basis.

We advise you to use more butter and also to advertise its value to your friends and neighbors. Nutritional authorities advise us that it is not only a healthy but a necessary food. Use it

yourself, advertise its value to everyone and let us all co-operate in consuming our full share of butter.

March Butter Market

The butter market generally ruled from easy to firm, with the trend of prices ranging upward during the first three weeks of the month, after which there was a sharp reaction.

To a large extent the trading has been in the nature of a buyers market. Dealers stocks are, in many instances low and buying has to a certain extent, been of the hand to mouth order.

Statistics, available in mid-month show, from government cold storage records, that there was, on March 1st, 46,513,000 pounds of butter in cold storage warehouses, as compared to 11,910,000 pounds on March 1st, 1929, and a five year average of 17,874,000 pounds. From these statistics it can readily be seen that we are gradually reducing total stocks, as compared to those on February first, when the total ranged around 60,229,000 pounds. But stocks on the whole, as compared to a year ago or even the five year average, are still very much out of line and have an unsatisfactory influence on the price situation.

The general tendency of the hand to mouth buyers appears to have a considerable bearing on the market and unless stocks become sharply reduced this character of buying may exert considerable influence on the market situation.

The price of 92 score, solid packed butter, New York City, on which the average surplus price for fluid milk under the Philadelphia Selling Plan is based, opened March 1st at 34 cents per pound. There was a gradual upturn during the first half, quotations reaching 39 1/2 cents on the 17th. Following this, prices showed a gradual decline, closing with prices at 37 1/2 cents at the end of the month.

The average price of 92 score butter, solid packed, New York City, on which the surplus price for March was computed was 37.04 cents per pound.

March Milk Prices

Co-operating buyers, will, under the provisions of the Philadelphia Selling Plan, make the following basis of payments for milk purchased during the month of March, 1930. All milk will be purchased on the basic and surplus plan.

Grade B market milk, basis quantity average, will be paid for on the basis of \$3.29 per hundred pounds, three per cent butterfat content, f. o. b. Philadelphia, or 7.1 cents per quart.

Grade B market milk three per cent butterfat content, delivered at receiving stations in the 51-60 mile zone, for March, 1930, delivery, is quoted at \$2.71 per one hundred pounds. The usual butterfat differentials and freight rate variations, applying at other mileage zones in the territory are shown by quotations on Page 5 of this issue of the MILK PRODUCERS' REVIEW.

The price of "A" milk, under the usual butterfat variation and prices in the different mileage zones in the territory and at "A" stations for March 1930, are also quoted on Page 5 of this issue of the MILK PRODUCERS' REVIEW.

Surplus Prices

The price of Surplus Milk for March 1930, three per cent butter fat content, f. o. b. Philadelphia, is quoted at \$1.63 per one hundred pounds or 3.5 cents per quart.

The price of Surplus Milk of the same butterfat content for March 1930, at all receiving stations, is quoted at \$1.15 per one hundred pounds.

LATEST MARKET PRICES

The basic prices, quoted below, for March, 1930, represent those to be paid by co-operating buyers for that month.

For all milk in excess of the basic quantity the surplus price, quoted below, for the month of March is to be paid.

Surplus milk will be paid for under one classification, Class I, represented by the amount of milk in excess of the basic average, which will be paid for by co-operating dealers on the basis of 92 score butter, solid pack, New York City.

PHILADELPHIA SELLING PLAN INTER-STATE MILK PRODUCERS' ASSOCIATION PRICES

This price list is issued with the understanding that it is net to the producers and that all buyers using it as a basis of payment to producers, shall in addition thereto make the following contributions and payments:

(1) To the Philadelphia Inter-State Dairy Council, 2c per 100 pounds (46 1/2 quarts) of all milk purchased from any producer at prices listed herein.

(2) To the Inter-State Milk Producers' Association, 2c per 100 pounds (46 1/2 quarts) of all milk bought from members of said Association.

(3) To the Philadelphia Inter-State Dairy Council, 2c per 100 pounds (46 1/2 quarts) of all milk bought from other producers at prices listed herein.

The funds so derived are to be used by the recipients for improving standards of quality in production and distribution of milk in the Philadelphia Milk Shed, for improvements and stabilization of market and for an educational campaign advertising the food value of dairy products.

BASIC PRICE March, 1930			BASIC PRICE Country Receiving Stations March, 1930		
Test Per Cent	Per 100 Lbs.	Price Per Qt.	Quotations are at railroad points. Inland stations carry differentials subject to local arrangements. Prices are less freight and receiving station charges.	Freight Rates	Price 3% Milk
3.0	3.29	7.1	1 to 10 incl.	2.75	\$2.79
3.1	3.31	7.15	11 to 20 "	2.83	2.77
3.2	3.33	7.2	21 to 30 "	3.03	2.75
3.3	3.35	7.25	31 to 40 "	3.13	2.74
3.4	3.37	7.3	41 to 50 "	3.33	2.72
3.5	3.39	7.35	51 to 60 "	3.43	2.71
3.6	3.41	7.4	61 to 70 "	3.64	2.69
3.7	3.43	7.45	71 to 80 "	3.74	2.68
3.8	3.45	7.5	81 to 90 "	3.89	2.67
3.9	3.47	7.55	91 to 100 "	3.99	2.66
4.0	3.49	7.6	101 to 110 "	4.14	2.64
4.1	3.51	7.65	111 to 120 "	4.24	2.63
4.2	3.53	7.7	121 to 130 "	4.34	2.62
4.3	3.55	7.75	131 to 140 "	4.50	2.61
4.4	3.57	7.8	141 to 150 "	4.60	2.60
4.5	3.59	7.85	151 to 160 "	4.75	2.58
4.6	3.61	7.9	161 to 170 "	4.80	2.58
4.7	3.63	7.95	171 to 180 "	4.90	2.57
4.8	3.65	8.0	181 to 190 "	5.05	2.55
4.9	3.67	8.05	191 to 200 "	5.10	2.55
5.0	3.69	8.1	201 to 210 "	5.20	2.54
5.1	3.71	8.15	211 to 220 "	5.35	2.52
5.2	3.73	8.2	221 to 230 "	5.40	2.52
5.3	3.75	8.25	231 to 240 "	5.50	2.51
5.4	3.77	8.3	241 to 250 "	5.56	2.50
5.5	3.79	8.35	251 to 260 "	5.66	2.49
5.6	3.81	8.4	261 to 270 "	5.76	2.48
5.7	3.83	8.45	271 to 280 "	5.81	2.48
5.8	3.85	8.5	281 to 290 "	5.96	2.46
5.9	3.87	8.55	291 to 300 "	6.00	2.46

When milk is not tested the price f. o. b. Philadelphia is 8 cents per quart.

MARCH SURPLUS PRICE F. O. B. Philadelphia			MARCH SURPLUS PRICE At All Receiving Stations		
Test Per Cent	Per 100 Lbs.	Per Qt.	CLASS I Per 100 Lbs.	CLASS II Per 100 Lbs.	CLASS III Per 100 Lbs.
3.0	\$1.63	3.5	3.05	1.07	1.07
3.1	1.65	3.55	3.11	1.09	1.09
3.2	1.67	3.6	3.15	1.11	1.11
3.3	1.69	3.65	3.21	1.13	1.13
3.4	1.71	3.7	3.25	1.15	1.15
3.5	1.73	3.75	3.31	1.17	1.17
3.6	1.75	3.8	3.35	1.19	1.19
3.7	1.77	3.85	3.41	1.21	1.21
3.8	1.79	3.9	3.45	1.23	1.23
3.9	1.81	3.95	3.51	1.25	1.25
4.0	1.83	4.0	3.55	1.27	1.27
4.1	1.85	4.05	3.61	1.29	1.29
4.2	1.87	4.1	3.65	1.31	1.31
4.3	1.89	4.15	3.71	1.33	1.33
4.4	1.91	4.2	3.75	1.35	1.35
4.5	1.93	4.25	3.81	1.37	1.37
4.6	1.95	4.3	3.85	1.39	1.39
4.7	1.97	4.35	3.91	1.41	1.41
4.8	1.99	4.4	3.95	1.43	1.43
4.9	2.01	4.45	4.01	1.45	1.45
5.0	2.03	4.5	4.05	1.47	1.47
5.1	2.05	4.55	4.11	1.49	1.49
5.2	2.07	4.6	4.15	1.51	1.51
5.3	2.09	4.65	4.21	1.53	1.53
5.4	2.11	4.7	4.25	1.55	1.55
5.5	2.13	4.75	4.31	1.57	1.57
5.6	2.15	4.8	4.35	1.59	1.59
5.7	2.17	4.85	4.41	1.61	1.61
5.8	2.19	4.9	4.45	1.63	1.63
5.9	2.21	4.95	4.51	1.65	1.65
6.0	2.23	5.0	4.55	1.67	1.67
6.1	2.25	5.05	4.61	1.69	1.69
6.2	2.27	5.1	4.65	1.71	1.71
6.3	2.29	5.15	4.71	1.73	1.73
6.4	2.31	5.2	4.75	1.75	1.75
6.5	2.33	5.25	4.81	1.77	1.77
6.6	2.35	5.3	4.85	1.79	1.79
6.7	2.37	5.35	4.91	1.81	1.81
6.8	2.39	5.4	4.95	1.83	1.83
6.9	2.41	5.45	5.01	1.85	1.85
7.0	2.43	5.5	5.05	1.87	1.87

MONTHLY BASIC PRICE OF GRADE B OR MARKET MILK

3 per cent butterfat content	Receiving stations 50 mile zone per cwt.	Receiving stations 100 mile zone per cwt.
Per Cwt. Phila.	Per Cwt. Phila.	Per Cwt. Phila.
1928	1.29	1.27
January	1.29	1.27
February	1.29	1.27
March	1.41	1.35
April	1.41	1.35
May	1.29	1.27
June	1.29	1.27
July	1.29	1.27
August	1.29	1.27
September	1.34	1.26
October	1.34	1.26
November	1.34	1.26
December	1.44	1.28
1929	1.29	1.27
January	1.29	1.27
February	1.29	1.27
March	1.41	1.35
April	1.41	1.35
May	1.29	1.27
June	1.29	1.27
July	1.29	1.27
August	1.29	1.27
September	1.34	1.26
October	1.34	1.26
November	1.34	1.26
December	1.44	1.28
1930	1.29	1.27
January	1.29	1.27
February	1.29	1.27
March	1.29	1.27

March, 1930, Inter-State Prices at "A" Delivery Points

The price of "A" milk of any given butterfat content and bacteria count at any "A" milk delivery point may be ascertained by adding to the base price per 100 lbs. for 3.50% B.F. milk at that delivery point, as given in

Eastern States Farmers' Exchange

Quality Seed for Hayland and Pasture

Eastern States grass seed mixtures represent very real value to the purchaser. These mixtures are not composed of cheap lots of seed thrown together to sell at bargain prices, nor are they composed of crop seeds which cannot be readily cleaned and which are offered at bargain prices, crop seeds generously sprinkled with weed and damaged seeds. They are carefully prepared blends of the very seeds which the Eastern States has purchased and prepared to go to the members separately. By purchasing these Eastern States hayland and pasture mixtures, members obtain their grass seed all mixed, do not have to bother with relatively small lots of certain seeds or leave them out of the mixture entirely, and the work of loading the seed into and unloading it out of the feed cars is materially reduced.

All on Open Formula

The formulas for the hayland and pasture mixtures may be obtained from the local representative or by writing for them to the office at Springfield, Massachusetts. There are three hayland and three pasture mixtures to take care of the general differences in soil conditions which exist in various sections of Eastern States territory.

Inoculant Included

Following the practice of including the proper inoculant for each lot of legume seed shipped to its members, the Eastern States Farmers' Exchange price for the grass seed mixtures includes the cost of the inoculant required by the legumes which the mixture contains. The inoculants are shipped in the seed sacks in cans which carry upon them clear directions for inoculating the seed in mixtures as well as separately with little trouble to the consumer.

EASTERN STATES CERTI-SEED "GROWS INTO PROFIT"

See your local representative or write for information on Eastern States seed, suggestions for fertilization, and the price.

Eastern States Farmers' Exchange

A non-stock, non-profit organization,
owned and controlled by the
farmers it serves

Headquarters: Springfield, Massachusetts

Conditions in Dairy Industry to be Covered By Farm Census

The dairy industry has been given a prominent place in the farm census which is to be taken by the Bureau of the Census beginning April 2 and ending May 1 this year. The various questions to be asked dairymen are expected to yield basic and current data which will enable Federal and State agricultural economists to help dairymen formulate a program of future development for the industry. This phase of the census is regarded as of special importance by specialists of the United States Department of Agriculture, in view of current conditions in the dairy industry. The dairy section of the census will get information on the number of milk cows on farms and the quantity of milk produced in 1929. It will get the number of cows milked which are of beef or dual-purpose breeding; the quantity and value of milk sold; cream sold; butterfat sold; butter sold; and the number of cows being milked at the time the census is taken, which will be in April together with the daily production of milk at that time.

Among the dairy questions to be asked, will be questions as to the number of yearling heifers; the number of heifers born in 1928 being kept mainly for beef cows or beef production; number of cows and heifers born before 1928 being kept mainly for milk production; cows and heifers born before 1928 being kept mainly for beef production; total number of cows and heifers milked during all or any part 1929; number of cows and heifers milked, the number which is mainly of beef or of dual-purpose breeding; the gallons of milk produced in 1929; and pounds of butter figured in 1929. The census will collect figures also on the number and breed of registered cows, heifers, and heifer calves.

Sterile Utensils Vital to Keeping Milk Clean

Dirty milk utensils are one of the greatest sources of bacteria in milk, says R. G. Connelly, New Jersey associate dairyman. He points out that no matter how clean and healthy the cows may be, or how sanitary the stables, milk which comes in contact with dirty utensils is immediately contaminated and its market quality impaired.

It is neither difficult nor expensive to control this cause of market milk deterioration, Mr. Connelly advises. All one needs is plenty of warm water, an alkali washing powder, a stiff brush, and steam or boiling water—all conscientiously applied to utensils immediately after they are used.

"Best results are obtained by first rinsing out all utensils with cold or lukewarm water to remove all remaining milk. Then thoroughly scrub each utensil with a stiff brush and hot water containing a liberal quantity of an alkali washing powder. Rags, greasy soaps, or soap powders are unsatisfactory for cleaning milk utensils.

"Steam is the best sterilizing medium. It not only kills the bacteria, but it also heats the utensils enough to dry them immediately, thereby preventing rust. Boiling water may be used where steam is not available, providing the utensils are boiled in the water for at least thirty minutes. Sterilization with boiling water is effective if done properly, but it is cumbersome. Steam sterilization, on the other hand, is available even to the smallest dairies at a relatively low cost. Plans for such a sterilizer are obtainable free from the Bureau of Dairying, United States Department of Agriculture, Washington, D. C.

Legume Silage May Aid Dry-Land Dairy Farms

Sweet clover silage may prove valuable as a wintering ration for dry cows and heifers under dry land conditions during years when other feed crops fail, says the Federal Bureau of Dairy Industry. Sweet clover can be placed in an inexpensive silo, such as a trench, and can provide the principal feed for the dry stock through the winter. This is indicated by tests at the United States Department of Agriculture field station at Ardmore, S. Dak.

Cows, however, did not relish the sweet clover silage as they did corn silage or grass silage. In a feeding experiment in which cows were fed sweet clover silage without a grain or hay ration, production dropped greatly. A sweet clover crop usually produces considerable vegetation, even in years when drought takes the corn crop, but in the vicinity of Ardmore many cows refuse to graze the sweet clover because of a bitter taste that is more noticeable in that vicinity than at other field stations of the department. Experience with sweet clover silage at Ardmore showed that ensiling causes the bitterness to disappear.

At the Huntley, Mont., station cows preferred corn silage to alfalfa silage made by adding 1 part of beet-sugar molasses to 20 parts of first cutting alfalfa.

"An interesting feature of the legume-silage feeding," says J. R. Dawson of the Bureau of Dairy Industry, "was the inability of the animals, when receiving silage as the only feed, to maintain an appetite for large quantities. Many of the cows consumed large quantities for a few days, but invariably the consumption declined after a short time.

Penn State Graduates 2288 Ags in 21 Years

From 1909 to 1929 inclusive the school of Agriculture at the Pennsylvania State College has graduated 2,288 students in 4-year courses, a summary compiled by Dean R. L. Watts shows.

During the past 20 years 382 students have been graduated from horticultural courses. Agronomy has graduated 365 students in the 21 years covered in the survey. Dairy husbandry ranks next with 317 graduates for the full period. Since 1912 animal husbandry has graduated 294, and agricultural biochemistry has 293 to its credit in the past 20 years. Forestry graduates number 234 for the full period. Since 1915 agricultural education has graduated 159 and since 1911 landscape architecture has graduated 105. Agricultural economics, established as a separate curriculum in 1923, has 69 graduates for four years. Poultry husbandry, the next youngest option, has graduated 39 since 1922. Botany has 33 graduates for the 1913-28 period.

The largest graduating classes of agricultural students came just before America entered the World War and soon after the close of the conflict. In 1916 there were 173 graduates; in 1922 there were 160. The 1920 and 1921 classes numbered 152 each. In 1917 there were 149. There were 139 graduates in 1925, 137 in 1924, 133 in 1915, and 131 in 1923. The past four classes have numbered 116, 110, 109, 111 respectively.

Expect Too Many Potatoes

Outlook figures released by federal agricultural officials indicate that farmers in the United States intended to plant 3,570,000 acres of potatoes this year compared to 3,370,000 acres harvested last year. Yields in line with the trend of recent years will provide a crop too large for consumption needs and, therefore, profitable production.

Change Dates of State Young Farmers' Meetings

Plans changing the annual Young Farmers' Week in June to separate meetings for 4-H Club members and vocational agriculture students in August, are announced by A. L. Baker, State Club Leader of the Pennsylvania State College.

In the past both club members and vocational students have met together for a week of contests, recreation, and training immediately after college commencement. The new plans call for Club Week August 13th to 16th, and Future Farmers' Week, August 18th to 22nd. Crowded conditions have compelled the change.

Members of agricultural and home economics clubs will come here for the club week. Demonstrations, contests, educational programs, and recreational activities will feature the event. A joint session with the agricultural committee of the Pennsylvania Bankers' Association is being arranged for Friday, August 15th, by the Club Leaders and W. S. McKay, of Greenville. The annual club leadership training school will be held August 11th to 16th instead of in June as in previous years.

State finals in oratorical contests, lectures, and judging contests will compose the program for the vocational students. Plans for the event are being made by H. C. Fetterolf, supervisor of Vocational Agriculture, State Department of Public Instruction, Harrisburg, and Professor H. C. Parkinson, head of the Department of Agricultural education.

The All-Mash Chick Ration

By C. S. PLATT,
Assistant Poultry Husbandman
New Brunswick, N. J.

The all-mash ration for baby chicks as fed at the New Jersey experiment station farm, New Brunswick, N. J., provides the nutrients necessary for good growth and development with a minimum expenditure of labor by the poultryman.

Under this system, it is no longer necessary to conform to an elaborate feeding schedule. The chicks are given their first feed when from 24 to 28 hours old, and from then on the all-mash ration is kept before them at all times.

The all-mash mixture needs no supplements of grain, grit, charcoal, milk, oyster shell, or green food until the chicks average one pound in weight. After that time it is usually advisable to feed grain, grit, and green food.

The formula for the all-mash mixture, which is best fed in hoppers, is as follows: 50 pounds ground yellow corn; 10 pounds wheat bran; 10 pounds wheat middlings; 10 pounds pinhead oats or small chick grains; 5 pounds meat scrap; 5 pounds fish meal; 5 pounds dried buttermilk or skim-milk; 5 pounds limestone flour or oyster shell meal; and 1 pound cod-liver oil.

Philadelphia Inter-State Dairy Council

Gen'l Office, Flint Building, Philadelphia
A co-operative movement established for the dissemination of information and publicity pertaining to the production and distribution of dairy products and their food value in nutrition.

Affiliated with the National Dairy Council

Dr. Clyde L. King, President
H. D. Allebach, Vice President
C. I. Cohoe, Secretary
F. R. Ealy, Assistant Secretary
R. J. Harrison, Jr., Treasurer
George J. Hauptfuhrer, Assistant Treasurer

Departmental Branches

C. I. Cohoe, Director Quality Control Department
Dr. E. G. Lechner, Assistant Director Quality Control Department
Lydia M. Broecker, Nutrition Department
Del Rose Macan, Dramatic Department
August A. Miller, Publicity Department

Don't Slight the Herds, Is Advice to Dairymen

To dairymen now inclined to slight their herds because new grass will soon be available, Prof. J. W. Bartlett, dairy husbandman for the New Jersey Agricultural Experiment Station, says, "Don't."

This advice applies to the milking herds, dry cows, and growing heifers, all of which, it is asserted, should continue to receive ample amounts of a well-balanced ration. Economy measures that reduce either the quality or quantity of the ration, Professor Bartlett points out, will result in reduced milk flow, a falling off in flesh of the cows, and retarded growth in the young stock.

"The well-fed cow that maintains her production until turning-out time will give an increased milk flow at a very low cost," states the dairy authority. "Therefore, it is better to order a carload of good mixed feed or legume hay to tide over until new grass is available than it is to use a poor grade of roughage because it can be bought cheaply. Quality should be the buyer's first consideration.

"If the silo is empty, it may be a good investment to feed each of the high-producing cows three pounds of beet pulp daily. Moreover, the cow that is soon to freshen must not, under any circumstances, be slighted in her ration. A fresh cow in good flesh is far more economical producer than the cow that freshens when in a run-down condition.

"It is true that young stock will make rapid gains when turned out to pasture, but right now each of them should have at least two pounds of a growing ration a day. Otherwise, it may take them all of next summer to make up for growth retarded at this season of year by insufficient grain in the ration.

"Dairymen also are cautioned against too early pasturing. This practice frequently injures the new growth."

Cecil Co. Farmers Meet

The Cecil County Council, held its annual meeting in the Calvert High School, Calvert, Maryland, on May 22nd, 1930. There was an attendance of approximately 125 at the annual dinner.

Following a routine business session the following officers were elected: President, Howard Brown; Vice President, A. H. Mendenhall; Treasurer, Lloyd Balderston; Secretary, Howard Reiser.

The principal speaker was Dr. F. B. Bomberger, Director of Extension, Maryland Agricultural College, who outlined the recent National Agricultural Marketing Act.

"Our duties as Citizens," was the subject of an address by Miss Laomina Engle, secretary of the Maryland League of Women Voters.

A short play, "Goose Money," was presented by members of the Appleton Home-makers Club.

County Agent, J. Z. Miller, of Cecil County, also made a brief address outlining some of the agricultural conditions in that county.

(J.L.P.)

New Jersey Has 89,603 T.B. Free Cattle

From information recently received the State of New Jersey had on March 1st, 1930, a total of 89,603 dairy cattle, in 9,902 herds, free from tuberculosis. This represents 57.37 per cent. of the states cattle population.

Applications have been received for the testing of approximately 140 herds with many more anticipated because several municipalities will soon require the tuberculin testing of all cattle supplying milk to them. All requests for testing are voluntary on the part of the herd owners.

Ben Middleton scores another smashing victory



(Below) Katherine, who returned \$2,277.43 profit over feed cost in seven years

10,472 lbs. milk—400.9 lbs. butterfat average yearly production for 7 years with 27-cow herd

Records of the Fairfax County, Virginia, Herd Improvement Association show that during the last seven years Ben Middleton's herd which averaged 27 cows has an average yearly production per cow of 10,472 lbs. of milk and 400.9 lbs.

of butterfat . . . One cow, Katherine, in seven lactations has produced 110,230 lbs. of milk and 3,956.4 lbs. of butterfat and returned in these seven years \$2,277.43 profit over feed cost. She is in perfect health and a regular breeder.

Skillful Feeder

To have 27 cows average 10,000 lbs. of milk and 400 lbs. of butterfat in one year is an accomplishment—to attain that impressive yearly average for seven consecutive years is a triumph in herd management. The Middleton herd is well bred, but breeding alone will not bring such consistent

results. It required real skill in feeding and handling the herd. During the fall, winter and spring Mr. Middleton feeds Larro Dairy Ration at the rate of 1 lb. to each 3½ lbs. of milk produced. He

feeds Larro in the summer when his cows are on pasture, too—the amount being varied according to the quality and quantity of pasture and the individual needs of each cow.

Feeds Larro Year Round
Ben Middleton knows the value of Larro. His records show it. He knows, too, that pasture alone during the summer months is not enough. That's why he feeds Larro the year round.

If you are already feeding Larro you know its value—if you are not feeding Larro it will pay you to get acquainted with it at once. See your Larro Dealer or write for complete information about Larro.

THE LARROWE MILLING CO.
DETROIT, MICHIGAN

Larro

FEEDS THAT DO NOT VARY
FOR POULTRY • HOGS • DAIRY

Ask your Larro Dealer for Larro Family Flour

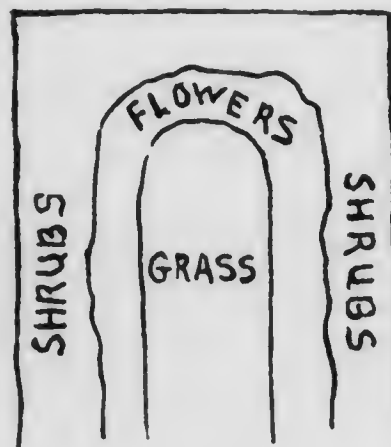




Making the Best of the Flower Garden

A flower garden is something which we may own which doesn't need to look exactly like those of all the neighbors. Then, let's be different.

To begin with, let's get certain ideas out of our mind that we must have lots of



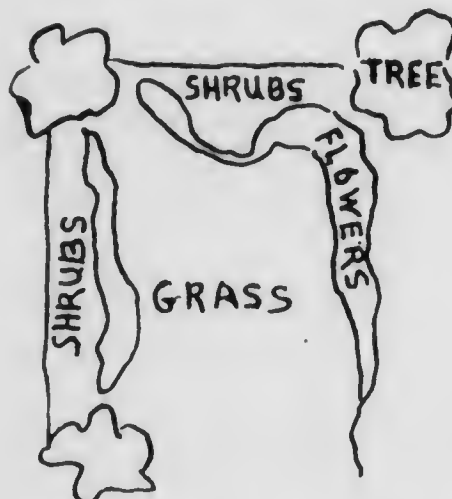
ground, that it's got to be formally "laid off," and that it will probably cost a great deal of money. Not at all.

As a matter of fact, it is using just what you have in the way of space, location and natural planting which will be the basis of a garden with individuality.

You do need sunshine, and you do also need good soil. But with these two essentials, the rest can be taken as you find it. If the location you select has several fruit trees in it, so much the better for your future effect. If the ground is rolling you have possibilities for making a portion of it into a rock garden. A small garden well cared for is far better than a large neglected one.

Native shrubbery such as the rhododendron and laurel which grow wild in parts of this territory can be used as planting under shade trees and as a background for flower beds.

You may decide to plant grass in the center of your garden as in the accompanying illustrations. Again you may



prefer to outline with flower beds some irregular path which follows a natural course between trees.

Try to resist the impulse for statuary and too many stiff benches unless you have planned a formal garden. A few comfortable seats grouped where the family can gather together on warm evenings will be more to the point.

The garden nursery where you can raise all manner of plants from seeds and cuttings is described elsewhere on this page. By such economical means as the nursery, your compost heap, and the donation of a few loads of manure from the dairy barn, you will find that the very few dollars invested in the flower garden will bring back a large return in pleasure.

HOME and HEALTH



The Garden Nursery

You can be your own nurseryman if you will devote an out-of-the-way corner in the garden, a hot-bed, a cold frame, or even a window box to a nursery for seedlings and cuttings. In this way you will be able to raise, in as generous a quantity as you desire, any of your favorite perennials. Most seedlings are considered stronger for being transplanted, and are better able to survive drought.

The soil for all seed beds must be rich and finely pulverized. Form shallow trenches to receive the larger seeds which should be about one-half inch under. Smaller seeds are barely covered.

The seeds of hardy biennials and perennials are sown in April. The soil should be settled and moist before the seeds are sown.

When ready to move the young plants to the garden, soak the soil well before moving them in order to move as much soil as possible with the roots. Protect them from the sun for about two days after transplanting.

Rose cuttings may be readily rooted by planting in the soil and covering with an inverted fruit jar. This jar conserves the heat and moisture and has the effect of a hot-bed.

Such shrubs as the forsythia may be rapidly rooted from undetached lower branches which are covered with a little earth and weighted down with a stone.

Don'ts For the Planter

Don't let manure come in contact with bulb or roots.

Don't plant roots in a doubled up position.

Don't fail to save wood ashes for the garden.

Don't prune shrubs except soon after they have finished blooming; however, when they are moved they require pruning back.

Don't plant shrubs nearer than three feet apart; large shrubs five feet or more apart.

Don't divide clumps of hardy plants by cutting through them, when the crowns may be pulled apart.

Don't discard the Easter bulbs, jonquils, tulips or lilies, but plant them later in the ground. Don't expect too much from them for at least two years.

Don't round and raise the bed above the roots of the shrub, nor make the flower-bed so high that the water will run off.

From—"Two Seasons in a Flower Garden."—LOUISE SHELTON.

It is a waste of effort to begin housecleaning before the stoves can be taken down. Storing the stoves away too early may mean colds for the family. If you are anxious to get the cleaning under way, begin with closets, bureau drawers and shelves. Next month you can spring-house clean to your hearts content.

Worrying can get to be a habit, and it's a bad one for our health and disposition. An old colored woman who once heard her mistress complain about her many trials said to her, "Law, honey, doan yo' worry. Jus' do lak me, chile. Ah wears the world lak a loose garment."

The child's confidence in himself depends upon the confidence his elders put in him.

The Gardener's Notebook

Hot-beds and cold frames are working to capacity just now. On sunny days begin the process of "hardening off" the plants which have had the protection of being under glass.

This should be done by admitting more and more outside air to the protected growing place. Raise the sashes at the ends from mid-morning till late afternoon. Even on cloudy days give some ventilation.

If the lawn needs reseeding this year, do it early. Grass likes plenty of moisture while germinating, and in order to weather the summer, it needs plenty of time to attain sturdy growth before hot weather.



The lawn should be superficially enriched by a top-dressing early every spring. There are two reasons for this. It furnishes plant food, and also provides a little additional covering for the grass roots. Bone meal and wood ashes are good for the former purpose. For the latter use good garden loam or commercial humus.

The soil of many home gardens has become so acid that unsatisfactory results are obtained with both flowers and vegetables. The cure for soil acidity is lime, which should be evenly distributed after spading, and well worked into the soil.

Many people plant sunflowers not alone for their decorative effect, but to secure the sunflower seeds, which poultry raisers feed to their prize chickens to give them glossy feathers in the fall.

The Compost Heap Comes Into Its Own

Every garden is entitled to its own compost heap. This is one of the most economical and valuable accessories to gardening. If you haven't one already, composed at last season's grass clippings and leaves, start in now to save the winter raking's from the lawn.

Make the compost heap in any out-of-sight spot. A successful flower gardener we know of made use of an empty silo pit which her husband discarded when he built a larger one of concrete.

Into this pit throughout the year went all of so-called "trash," which would gradually decay. By building up various piles in this pit, she had always a portion ready for garden use, while another pile received the next contribution.

You will need to guard against over-generous members of the family who, until you have trained them, may want to add an occasional barrel hoop or tin can to your heap. When you come upon these relics next season you may feel like a member of an expedition discovering prehistoric remains, but it won't contribute to the appearance or usefulness of your new loam.

If you are just beginning a compost heap, even now there are the rakings of leaves from the spring yard cleanings. This will be the foundation upon which green stuff will be piled later.

Remember to occasionally sprinkle the compost heap with lime.

Utensils for Cake Making

The right utensils make good results easier and more certain in cake making as in every other household process. Eight utensils are especially adapted to mixing and baking cake. Because accurate measurements are essential for uniform results, standard one-half pint measuring cups marked to show quarters and thirds, and teaspoons and tablespoons of standard capacity—three teaspoons equal one tablespoon—are recommended. A wooden spoon is preferred to a metal spoon because it is less noisy, it does not darken the mixture, and it is more comfortable to handle for beating and stirring. An earthenware bowl with a rounded bottom is better for mixing the batter than lighter bowls, because its weight helps to hold it in position during the mixing and beating. For beating egg yolks, whole eggs, and even for mixing some batters the Dover egg beater is efficient. Many persons prefer a wire spoon for beating egg whites. This utensil may also be used for folding beaten egg whites into a mixture and for beating thin batters smooth.

Pans for baking cake are made of tin, aluminum, enamel, oven glass, and Russian iron. Cakes baked in the thicker pans require a higher temperature at the end than those baked in the thinner pans.

Ways of Using Watercress

The tender young sprigs of watercress usually to be found in the spring along the edges of shallow streams, make tasty additions to the menu at a time of year when everyone hungers for fresh green foods. Below are suggested several recipes for using watercress.

Cream of Watercress Soup
2 c. white stock 1/2 c. milk
2 bunches watercress Yolk 1 egg
3 tbsp. butter Salt
2 tbsp. flour Pepper

Cut finely leaves of watercress; cook five minutes in two tablespoons butter, add stock, and boil five minutes. Thicken with butter and flour cooked together, add salt and pepper. Just before serving, add milk and egg yolk, slightly beaten. Serve with toasted triangles.

Toasted Triangles
Cut stale bread in one-eighth-inch slices and remove crust; then cut in halves on the diagonal, making triangles. Toast under a gas flame or bake in a slow oven until crisp and delicately browned.

Dressed Watercress
Wash, remove roots, drain, and chill watercress. Arrange in salad dish, around a mound of cottage cheese. Serve with French dressing made as follows:

French Dressing
Put 1/2 tsp. salt; 1/4 tsp. pepper; 2 tbsp. vinegar; 4 tbsp. olive oil in small glass jar, cover, and shake thoroughly. Some prefer the addition of a few drops onion juice. One tablespoon each, lemon juice and vinegar may be used.

Lemon and Watercress Sandwiches
1/2 lb. butter 1/4 tsp. grated lemon rind
1/4 tsp. salt 1 c. minced watercress
1 tbsp. lemon juice

Cream butter, add remaining ingredients, and spread between slices of whole wheat bread. One pound loaf of bread cuts 16 to 18 slices. Use 1/2 to 3/4 lb. butter creamed for 50 sandwiches.

Spring Tonics Free For the Picking

Dr. Hannah McK Lyons

Down the lane and across the field used to go Grandfather when April arrived and the frost was out of the ground. He had said to the family, "It's time for a spring tonic to thin the blood after the heavy foods we've used during the winter. We need some sassafras tea."

In the clearing across the field, small sassafras trees were growing. Here he used the mattock he had carried to dig out roots which were taken home, well washed and the bark shaved off. From these, tea was made for supper, and for the next three weeks, sassafras tea was on the bill of fare for about three days each week.

You doubtless remember the glass of sulphur and molasses mixed in the spring time. Each child, as well as older folk, had a teaspoonful every morning for three days, rested three days, and then the dosage was again repeated.

What a long way we have come since those days. The newer knowledge of foods and food values has gone far toward explaining some of the things which we did purely by instinct, in Grandfather's time.

Change of temperature enforces a change of wearing apparel but few realize that this ought to apply to foods and that the diet should be altered accordingly. In the olden days every cellar was stored for winter use with beets, carrots, turnips, parsnips, and other fleshy tuberous root vegetables. Each one was rich in minerals and the sugars peculiar to these vegetables which gave warmth and energy for the cold days of winter.

But how eagerly we welcomed the first green things of the spring. Nature sees to it that each year hundreds of herbs, plants, roots, vegetables and fruits grow and mature into the most perfect medicines. She stores her vitamins (the growth and health promoting substances) in the lettuce, cabbage, spinach, tomatoes and milk, just waiting to be nibbled or sipped. She stores her fats in the cheese, peanuts, and many of the vegetables and fruits.

Habit has made meat the basis of the American meal for winter and summer. However, from the standpoint of health and comfort, leaving economy out of the question, we are better off if we confine ourselves to lighter foods during the hot summer months. Milk and eggs are the best foods at all times, supplying maximum nourishment without too much heat. Vegetables, particularly the green ones, are likewise good at all times, but Nature has especially ordained them for spring and summer eating.

How eagerly each new green thing is welcomed in the spring. Why go to a drug store for that "bottle of questionable iron tonic" when the fields are yellow with dandelions which should have a place on the dining table, either raw as a salad with a simple boiled dressing, or cooked as you like other greens cooked. If to this you add a slice of hard cooked egg, you are adding another tonic in the sulphur of the egg yolk. It is the same thing in an improved form as your old-fashioned tonic of sulphur and molasses—the iron came in the molasses then but here it is in the dandelion. Then, the sulphur powder was mixed with the molasses, but we now know that you can have it in a more pleasant form in the egg itself.

In addition to dandelions, there might be added a long list of other greens, such as sour-dock, garden dock, the young turnip tops, beet tops, lamb's quarter and poke, which is first cousin to the delicious asparagus. The list is long but they are yours with their fine minerals and vegetable acids just for the picking.



MISSING in a blade of GRASS

TINY BLADES OF GRASS . . . sprouting in your pastures . . . soon your cows will be there . . . eating their fill and bringing home the usual flush of spring pasture milk. Milk that appears to cost you little . . . but really costs you a lot in the end . . . if pasture is your only feed.

In every 10 pounds of young grass are 8 to 9 pounds of pure water . . . very little feed at all! To get enough actual feed to do her job, the Illinois Experiment Station says she must eat 100 pounds of grass a day! But she can't hold 100 pounds of grass!

Her milk flow may look good on pasture alone . . . but she's robbing her body . . . and even starving her unborn calf to do it! That's why Purina Bulky Cow Chow . . . a real feed at a reasonable price . . . should be ready for your cows every day this spring and summer! You'll see the difference this summer . . . you'll see a difference this fall. Better calves . . . less calving trouble . . . more milk after calving. A feed that makes your pasture worth more . . . your cows worth more . . . your dairy business worth more . . . Purina Bulky Cow Chow!



AT THE STORE WITH THE CHECKERBOARD SIGN

THE PURINA DAIRY CHOWS

Purina Bulky Cow Chow
Purina 20% Cow Chow
Purina 24% Cow Chow
Purina 34% Cow Chow
Purina Bulky-Las
Purina Filling Chow
Purina Calf Chow



Arthritis—A Suggested Remedy

Two physicians, nose and throat specialists, were discussing at dinner, the prevalence of arthritis this winter and spring, when the older one remarked, "I wonder if the many drugs with which folks are dosing nose and throat, without knowing their effects might be responsible for this condition?"

Then came to me the recollection of A. G. Humphreys, formerly of the National Stockman and Farmer, writing on this very topic who gave a safe remedy:

"This is a disease that no one knows very much about. No one except those who have had the misfortune to have it, and have had their joints twisted and dis-

torted, and have listened to the clock strike every hour in the night because of the excruciating pain, with a pain so near like a toothache that it can be distinguished only by the location. Of the remedies and prescriptions for this disease there are a legion. From what I have been told (and I have been told a lot) it is caused by some habit of eating. After I became a habitual drinker of milk I lost all desire to see a doctor for arthritis. I like to think of milk as a cure (even if it did not turn the trick) at any rate it can do no harm, and that is more than can be said of lots of the medicine that is given for it."

A Money Raising Idea For Your Club

Some of the entries in the recent annual Philadelphia Flower Show offer practicable suggestions to any local garden club or group who wish to stage a small flower show.

Among the competitions were those for the best collection of plants arranged for a window-sill; a small table containing fresh flowers and any other accessories; and a miniature picture, composed of an arrangement of fresh flowers against a neutral background and framed by old-fashioned picture frame.

As means of raising funds charge admission. Write us for further information.



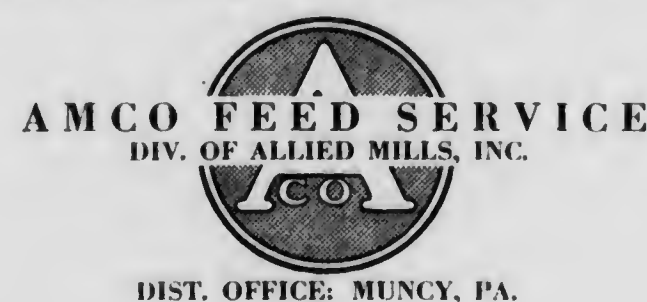
RAISE THE CALF, BUT SELL THE MOTHER'S MILK

RAISE YOUR BEST CALVES: that is the right way to build up your herd. But using whole milk makes a calf too expensive, so it is necessary to use a calf meal which takes the place of whole milk.

When a calf is a few days old it can be shifted gradually from its milk diet without loss of growth or health, provided you substitute calf meal gruel made from Amco Calf Meal, with skim milk or water. By making this shift you can sell the whole milk of the cow and save from \$20 to \$30 within six months.

Amco Calf Meal replaces a calf's natural food by other ingredients which produce the same rapid, healthy growth, and do it more economically. This Calf Meal contains the best growth promoting materials, in the correct balance to insure profitable and rapid development.

Amco Calf Meal is palatable and highly digestible; the materials are freshly mixed when you get them, so there is no danger of digestive upsets or days off-feed. The calves like it, and it is easy to feed. Feeding directions are furnished with every bag. Your nearest Amco Agent will supply you.



COW TESTING ASSOCIATIONS

Find Many Good Cows in Association Tests

Eighty dairy herd improvement associations tested 29,316 cows in Pennsylvania in January. C. R. Gearhart, of the Penn State College dairy extension service, reports. One-sixth of the cows produced more than 40 pounds of butterfat during the month, 4,796 cows exceeding that mark. Every fifth cow was a 1000-pound milker, 6,065 cows qualifying for that record.

In number of cows tested the Chester Valley association of Chester county led with 743. The Coventry association in the same county was second with 595 cows tested. Cumberland No. 1 association, with 174 cows, led in the number of 40 pound fat producers, and Montgomery No. 1 was second with 123. Cumberland No. 1 was first also in 1000 pound milkers with 205, while Buffalo Valley No. 1 in Union county placed second with 150 heavy milkers.

Tested Cows Produce High Yearly Average

For the third consecutive year the average production of butterfat per cow exceeded 300 pounds in Pennsylvania cow testing associations in 1929, a summary of the work by I. O. Sidelman, of the Pennsylvania State College dairy extension service, shows.

There were 77 associations completing the year's work, an increase of 10 over the 1928 number. These groups tested 32,484 cows, a gain of 5,046 over the previous year. The average production per cow was 7,751 pounds of milk and 300.5 pounds of butterfat.

The Venango county association led in butterfat production, 243 cows averaging 359 pounds per cow. By producing 10,078 pounds of milk; 93 cows in the Carbon county association led in this phase of the testing work.

Eight cows in the registered Holstein herd of A. C. Slifer, of the Buffalo Valley association in Union county, had the highest individual butterfat record, 526.1 pounds each. Roy S. Bowen's herd of eight registered Holsteins in the Wellsboro association of Tioga county led in milk production, averaging 14,371 pounds apiece. The best cow was a registered Holstein, owned by W. F. Bohlender, of Bradford county, which produced 23,500 pounds of milk and 902.2 pounds of butterfat.

Northern Association, York County

The Northern York County Cow Testing Association finished its third year January 1, 1930 with 18 whole year and 2 part year members with 10 bi-monthly members in the Association which are included in this report.

The results for the three years are as follows:

YEAR	Ave. No. Cows	Lbs. Milk	Lbs. Fat
1927	216.57	7493	310.3
1928	303.66	7453	317.3
1929	312.36	7696	318.2

The results for members is as follows:

Total Ave. No. cows in the Association	Lbs. milk	Lbs. Fat
Ave. per cow	7696	318.2
Lbs. butterfat	318.2	4.1
Percentage of product	306.02	45.55
Value of product	61.65	107.20
Value of roughage not inc. pasture	199.00	2.86
Cost of grain	1.39	.34
Total cost of feed	2.86	
Value of prod. above feed cost	1.39	
Return for \$1.00 expended for feed	1.39	
Feed cost per cwt. milk	1.39	
Feed cost per lb. fat	.34	

Individual Herd Records

Eleven herds with an average of 5 or more cows exceeded an average production of 300 lbs. of butterfat. A complete list of these herds is as follows:

OWNER'S NAME AND ADDRESS	Ave. No. cows	Breed	Lbs. Milk	Lbs. Fat
N. E. Rishel, York No. 8	12.25	R. H.	12,106	413.7
Geo. B. Livingston, East Berlin	6.58	R. & G. H.	11,414	403.9
J. A. Poorbaugh, York No. 3	28.08	R. & G. G.	8,218	373.8
Wm. F. Dunmer, Mt. Wolf	1.67	G. H. & G. G.	9,714	350.6
J. J. Hamme, Abbotstown	9.75	R. G.	7,154	346.2
J. Raymond Arnold, Hellam	43.17	R. & G. G.	7,238	341.4
Frank L. Krall, East Berlin	19.58	R. H.	9,976	334.9
W. W. Little, Hanover	17.58	R. G.	7,430	331.2
C. Allen May, Dover	15.96	R. G.	7,035	327.6
O. C. Livingston, Abbotstown	12.42	R. & G. H.	9,498	319.6
Haines Acres, York No. 7 (10 Mo.)	17	R. H.	8,588	302.

Oxford, Penna., Cow Testing Association, 1929

The Oxford Cow Testing Association finished its second year, January 1, 1930, with 24 whole-year members. In addition 4 members were in the Association for part of the year. The total number of cows for all or part of the year was 543. The result for the whole-year members is as follows:

Ave. No. of cows in the Association	1928	1929
Ave. per cow	220.75	384.61
Lbs. of milk	7088	6753
Lbs. of butterfat	290.6	205.1
Per cent of butterfat	4.1	4.5
Value of product	229.07	261.13
Cost of roughage	42.80	38.17
Cost of grain	55.71	49.93
Total cost of feed	98.51	88.10
Value of prod. above feed cost	130.56	173.03
Return for \$1.00 expended for feed	2.33	2.96
Feed cost per 100 lbs. milk	1.39	1.30
Feed cost per lb. butterfat	.34	.29

Individual Herd Records

Thirteen (13) herds with an average of five or more cows exceeded an average of 300 pounds of butterfat. A complete list of these herds follows:

Owner's Name and Address	Ave. No. cows	Breed	Lbs. milk	Lbs. fat
Norman Thompson, Oxford	19.88	G. J.	9,123	438.0
Scott Bunting, Oxford	16.64	R. J.	7,258	383.5
Reid & Dickey, Oxford	7.61	Mixed	9,750	351.1
Maurice Michener, West Grove	18.59	G. J.	6,551	335.1
E. England, Northeast, Md.	11.70	R. G. & G. G.	6,617	327.6
Harvey Chase, Oxford	33.18	R. J. & G. J.	6,300	326.1
Howard Wollaston, Avondale	13.87	R. J.	6,263	317.8
Dr. Wm. B. Ewing, West Grove	20.00	R. G.	6,303	313.0
Norman Fell, Nottingham	14.93	Mixed	7,859	311.2
J. S. Reisler, Nottingham	8.99	R. G.	6,692	310.0
Edgar Haines, West Grove	17.98	G. G.	6,697	307.3
Thomas Sloan, Oxford	14.99	G. H. & G. J.	8,409	307.3
Lewis Brown, Nottingham	15.24	Mixed	7,788	300.0

Compensation, Automobile & Truck Insurance

Save Money by Giving Us Your Insurance

Our policies furnish Compensation protection as required by the Compensation Act. We protect the employer as well as his employees. We paid a dividend for 1928 of 18%. If interested, write for particulars.

I am interested in having Casualty Insurance for my help and protection for myself, 24 hours in the day. I estimate my payroll for the year at _____

Occupation _____

Name _____

Address _____

We write insurance in the state of Pennsylvania only.

WE WRITE A STANDARD AUTOMOBILE POLICY. IF INTERESTED, FILL IN THE ATTACHED BLANK AND WE WILL GIVE YOU FULL INFORMATION

Name _____ Address _____ City _____ County _____

Insurance Begins _____ 19 _____ Expires _____ 19 _____

Business _____ Mfg. Name _____

Type of Body _____ Year Model _____ No. Cylinders _____

Serial No. _____ Motor No. _____ Truck _____

Capacity _____ Serial No. _____ Motor No. _____

Pennsylvania Threshermen & Farmers' Mutual Casualty Insurance Co.

311 Mechanics Trust Bldg., Harrisburg, Pa.

Heavy Butter Stocks Feature of Cold Storage Situation

Stocks of creamery butter in cold storage on March 1 were approximately four times the quantity in storage on March 1 last year. Poultry and eggs also were in larger supply. Total holdings of frozen meats were less than on March 1, 1929, according to the cold storage report issued March 13th, by the Bureau of Agricultural Economics, United States Department of Agriculture.

Creamery butter stocks are reported at 46,513,000 pounds compared with 11,910,000 pounds last March, and a five-year average of 17,874,000 pounds on that date. Holdings of case eggs are reported at 84,000 cases compared with 11,000 cases a year ago. Total stocks of frozen poultry are placed at 133,138,000 pounds compared with 89,088,000 pounds last year.

There was more frozen beef, frozen lamb and mutton, and cured beef in storage March 1st, than a year ago, but less frozen pork, dry salt pork, and pickled pork. Total stocks of all kinds are placed at 947,501,000 pounds as compared with 1,128,128,000 pounds last year. Lard holdings are reported at 112,715,000 pounds against 173,864,000 pounds last year.

A slightly smaller volume of apples is reported in storage this March; holdings aggregate 4,218,000 barrels against 4,517,000 barrels last March.

Penn State College Enlarge Farmers' Field Day

Changes in the annual Farmer's Field Day from an evening and one day affair to an event running through two evenings and two days are announced by Professor T. I. Mairs, of the Pennsylvania State College, in charge of the program. Dates set for the new Farmers' week are June 17, 18 and 19.

A dairy exposition will be staged as the chief feature of the Farmers' meeting this year. Detailed plans are now being made for the exposition which will include all phases of the dairy industry and lines of work related to it.

All the facilities of the School of Agriculture and the agricultural experiment station will be utilized in the Farmers' Week. There will be tours to experimental orchards, gardens, seed and fertilizer plots, the dairy and livestock herds, and the poultry plant. Discussions of the latest findings of science and their application to the solution of practical farm problems will be featured. There will also be demonstrations of practices found useful and profitable in improved agriculture.

Separate programs of unusual interest will be presented for farm homemakers who attend the big annual gathering, according to Professor Mairs.

Make sure that growing heifers have plenty of fresh, pure water at all times.

Advertisers Wish to Know Where You Read Their Ads.

WHEN WRITING ADVERTISERS IN
THE MILK PRODUCERS' REVIEW
MENTION IT IN YOUR LETTER



Seed Well Today for Tomorrow's Crop

A McCormick-Deering grain drill is assurance of getting the best possible yield that soil and moisture conditions will permit. For each individual requirement there is a size and type of McCormick-Deering drill, quality built, and so carefully designed that it does good work under all conditions. McCormick-Deering drills are known by the service they give. Thousands upon thousands of satisfied users, who know the value of a sturdy, compact, and convenient grain drill, vouch for McCormick-Deering as the drill that starts the seed right.

Since the first McCormick-Deering grain drill was placed on the market, improvements and refinements have been made until today the line is recognized by farmers in all parts of the world as a standard of quality. Everything humanly possible has been done to make McCormick-Deering drills as near mechanically perfect as possible. No opportunity to improve their design and construction has been overlooked—truly, McCormick-Deering drills are built right. Ask us to show these drills to you.

INTERNATIONAL HARVESTER COMPANY
OF AMERICA
(Incorporated)
PHILADELPHIA HARRISBURG BALTIMORE

Cool your Milk

this new and better

Way. • Cool it quickly to below 50 degrees and KEEP IT COOL. Do this if you want top prices . . . and if you want to supply milk that is clean, wholesome and low in bacterial count. The ESCO Milk Cooling Cabinet is designed exclusively for cooling and storing milk on the dairy farm. Operated by electric refrigeration . . . controlled automatically, maintaining a uniformly low temperature. Cans of milk placed in the ice cold water of an ESCO Cabinet are cooled quickly and kept at a temperature below 50 degrees. It is the easiest method—clean, trouble-free and inexpensive. Exactly what you have been seeking.



ELECTRIC MILK COOLING CABINET

Some territory still open for distributors and dealers

Built in 4, 6, 8, 10, 12 and 14-can capacities. Insulated with 3" cork on all sides. Refrigerating coils encircle interior.



Free Circular tells all about it! Send for it Now!

ESCO Cabinet Co., West Chester, Pa.
Please send me full information concerning the ESCO Milk Cooling System for dairies.

Name _____
Address _____
Town _____
I make _____ cans of milk per day (2 milkings)
State _____

IF YOU WISH TO KEEP POSTED ON DAIRY PROGRESS—

READ THE

Inter-State Milk Producers' Review

IF YOU WISH TO KEEP POSTED ON NEW EQUIPMENT, FEEDS, CATTLE SALES, Etc.—

READ THE ADVERTISEMENTS IN THE

Inter-State Milk Producers' Review

Always mention the name of this paper when answering advertisements

Report of the Quality Control Department Philadelphia Inter-State Dairy Council

The following is a report of the work done by the Quality Control Department of the Dairy Council for the month of January, 1930:

No. Inspections Made	1,758
Sediment Tests	1,257
No. Permanent Permits Issued	68
No. Temporary Permits Issued	80
No. Meetings Held	3
Attendance	310
Reels Movies Shown	5
No. Man Days	79 1/2
Bacteria Tests Made (Plants)	3
No. Miles Traveled	14,902

During the month 24 dairies were discontinued from selling for failure to comply with the regulations—12 dairies were reinstated before the month was up.

To date, 153,361 farm inspections have been made.

Inter-State Directors Hold Bi-Monthly Meeting

(Continued from page 1)

The excessive butter surplus in cold storage was subject of a number of reports by the directors and there was an apparent disposition of the farmers to discontinue the use of substitutes and increase their consumption of butter.

Robert W. Balderston, manager of the National Dairy Council and former secretary of the Inter-State Milk Producers' Association, made an interesting address. He outlined the program of the recent annual meeting of the Pure Milk Association of Chicago, Ill., which he recently attended. He spoke on the activities of the National Dairy Council in the furtherance of a national campaign to increase the consumption of butter and particularly the effort being made to consume the heavy surplus of butter now in cold storage and to consider more economic methods of butter production. The program of consumption and the movement of the heavy butter supply is a tremendous one—one that cannot be solved in a day, but the response to their efforts now being received is highly encouraging.

Dr. R. S. Breed made an interesting address on the closing morning of the meeting on the "Direct Microscopic Bacteria Count."

"When we look at a bottle of milk we find it very hard to tell just what kind of milk it is. It may be dirty and it may exhibit more or less cream. In many cases its quality can only be determined by laboratory tests. Milk, first should be safe, that is free of disease germs, second, it must be clean; third, it must have good keeping qualities; and fourth, it must be free from odor."

Dr. Breed illustrated, by means of lantern slides, the various characteristics of different bacteria under the microscope. The particular characteristics of the garget bacteria, lactic acid or sour milk bacteria, and those of other kinds and classes. The isolation of these various bacteria which all have a pretty general meaning to the bacteriologist enables him to clearly outline the various effects caused by different conditions under which the milk has been produced and also cared for by the distributor and is therefore, a logical method by which undesirable bacteria can be identified and located and the necessary procedure to be taken to keep such bacteria out of the milk supply."

Selecting the Dairy Bull

In selecting a dairy bull on the basis of the records of his ancestors consideration should be given to the conditions under which the records were made, says the United States Department of Agriculture. An investigation by the Bureau of Dairy Industry at Beltsville, Md., showed that when cows were milked and fed three times a day instead of twice, confined in box stalls instead of in stanchions, fed enough to make them fat instead of keeping them in ordinary flesh, and bred to freshen at intervals of 15 months instead of 12 the production was increased 50 per cent.

A herd improvement association record of 400 pounds of butterfat, if made under ordinary farm conditions, the bureau says is equal to an advanced registry or register of merit record of 600 pounds.

Uncle Ab says it is always too easy to find excuses for neglecting the things he does not want to do.

For early and sound sleep, give the small child a light evening meal. Whole wheat or cereal bread, milk to drink, fruit, and a vegetable or an egg are sufficient.

Garlic May Be Inhaled as Well as Eaten

Some time ago, investigations at the United States Department of Agriculture Experiment Farms, announced that from exhaustive studies that one cow having access to garlic in the pasture could transmit that odor to other cows with which she might be stabled.

At that time, C. J. Babcock, of the United States Department of Agriculture, stated that "Experiments carried on by the Bureau of Dairy Industry, showed that garlic flavor can be detected in milk drawn from a cow one minute after she had consumed one-half pound of garlic tops and ten minutes after she had inhaled garlic odor. For instance, as when stabled with other cows which have had access to garlic."

It is believed necessary to remove cows from garlic infested pasture for from four to seven hours before milking to prevent the garlic flavor from appearing in the milk.

"The best way to control off-flavors in milk, is to prevent them. In the production of palatable milk preventative measures are always the best. Therefore, dairymen should: (1) feed milk tainting feeds just after milking; (2) keep cows and barns clean; (3) properly ventilate cow stables, and (4) aerate milk in order to decrease the intensity of feed and barn taints, if any be present. Prompt cooling and storing of milk at a low temperature will retard the development of flavors and odors from biological action."

National Dairy Council Elects New Officer

According to an announcement by Robert W. Balderston, Council Manager, Clyde Bechtelheimer, secretary of the Iowa Dairy Council and of the Iowa Creamery Secretaries and Managers' Association, Waterloo, Iowa; has been elected full time secretary of the National Dairy Council.

Since its organization in 1919, Mr. Bechtelheimer has been associated with the Iowa Dairy Council. He became active manager of the Iowa Creamery Secretaries' and Managers' Association in 1923.

In his new work, Mr. Bechtelheimer will supervise some of the expanding activities of the National Dairy Council.

Mr. Balderston also announces that on May 1st, 1930, the headquarters of the National Dairy Council will be removed from 307 N. Michigan Ave., Chicago, Ill., to 221 N. La Salle Street, Chicago, Ill.

Dairy Council Advisory Board Holds Meeting

(Continued from page 1)

of the Philadelphia Dairy Council and now Manager of the National Dairy Council reviewed some of the work of the Philadelphia Council and outlined some of the new programs of the National organization.

The general session closed with the presentation of the "Marionettes," by Misses Hortense Cassell and Ann Carroll.

One hundred and twenty attended the usual annual dinner to the Advisory Board which in this instance was in the nature of a testimonial to Mr. Balderston. The addresses at the dinner were made by Ralph W. Hetzell, President, Pennsylvania State College; Ralph E. Irwin, Department of Health, Commonwealth of Pennsylvania; F. P. Willits, former President Inter-State Milk Producers' Association. Mrs. S. Blair Luckie, Pennsylvania Federation of Women's Clubs; Thomas B. Harbison, Harbison Dairies, Inc.; C. J. Cohee, Philadelphia Inter-State Dairy Council and C. Henderson Supplee, Supplee-Wills-Jones Milk Co.

The photograph at the right was made during extensive tests under practical farm conditions under the direct supervision of Johnson & Johnson laboratory specialists. It shows how quickly milk flows through the Rapid-Flo Filter Disk.



NOTICE

The Special Offer of Free Rapid-Flo Steel Disk Cabinets expires at midnight April 30, 1930. Mail your order NOW!

The Fastest Efficient Milk Filter Disk RAPID-FLO—by JOHNSON & JOHNSON

FREE CABINETS FOR RAPID-FLO FILTER DISKS

Being Advertised to your Customers



This handsome, convenient, steel disk storage cabinet is a feature of the introduction of Rapid-Flo Disks to the dairy industry. Advertisements are telling dairymen they can obtain one of these cabinets free with each purchase of 600 Rapid-Flo Disks from their dealer. For every 600 disks you order from us to meet the demands created by this introductory offer, we will ship you Free one of these cabinets. The supply is limited. Write today for full information.

A Special Spring Campaign in these Publications

The new Rapid-Flo Disk and the Free Cabinet Offer are being advertised in these leading dairy and farm publications:

American Agriculturist	Dairymen's League News
Wisconsin Agriculturist	Hoard's Dairyman
New England Dairyman	Pennsylvania Farmer
California Cultivator	

Use of Radio on Pennsylvania Farms Increases

Statistics recently available show that there was a marked increase in the use of the radio on Pennsylvania farms in 1929.

The total number of farm radios on January 1st, 1930, was 48,560 as compared to 42,050 on the same date in 1929 and 35,460 in 1928, according to statistics of the Pennsylvania Department of Agriculture.

Bucks county led with 1,970 farm radios; Chester, Berks, Washington, Westmoreland, Lancaster, York, Montgomery, Erie, Crawford, Bradford, Armstrong, Butler, Lehigh, Mercer, Northampton, Wayne and Somerset, all of these counties exceed the 1000 mark.

Baby Chicks Grow Fast

Baby chicks do a lot of growing in the first four weeks of their lives. H. L. Shrader, extension poultryman in the United States Department of Agriculture, says they double in size in the first two weeks. Not satisfied with such a record, they double in size again in the next two weeks, if they get the right kind of attention.

Two essentials for success in rearing baby chicks, Mr. Shrader explains, are plenty of heat and feed. A good rule to follow in feeding chicks, he says, is to provide a hopper 4 feet long for each 100 chicks. At the end of three weeks another hopper should be added.

Garden to Meet Needs

The amount of each vegetable to plant in the home garden depends upon family preferences as well as soil productivity. About one-half of the entire garden area on a farm usually is devoted to such crops as sweet corn, potatoes, dry beans, and peas.

Test Seed Corn Now

Freezes last November may have severely injured the seed corn saved for planting this year. Testing is one way of taking out insurance for a good crop. Few farmers can afford to take the risk of planting seed that will not grow.

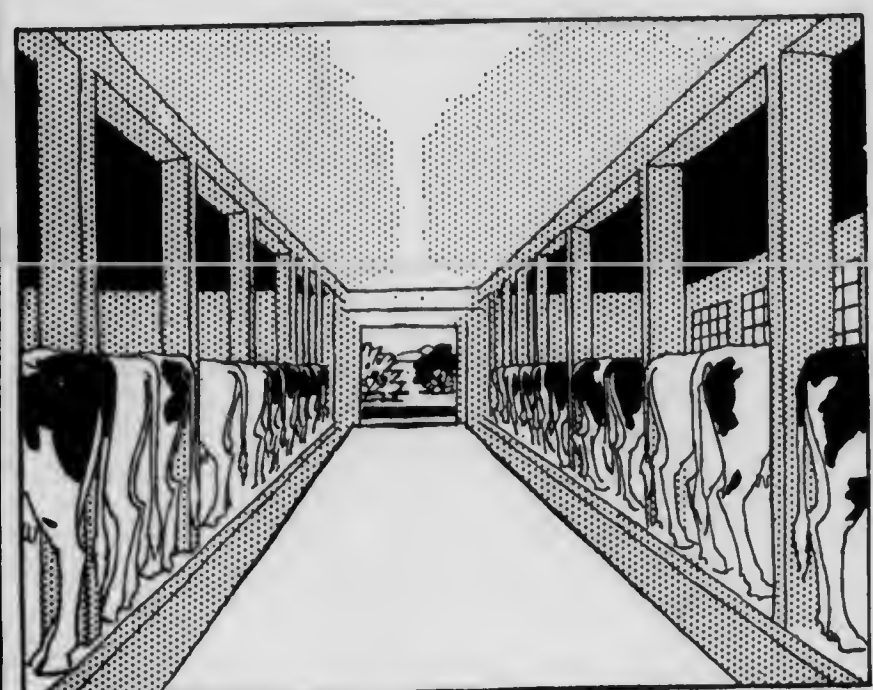
MAIL COUPON FOR FREE SAMPLES AND FULL INFORMATION

DAIRY FILTER PRODUCTS DIVISION, Johnson & Johnson, New Brunswick, N. J.

Without obligation, please send us Free Samples of the Rapid-Flo Filter Disk and full particulars of the Free Filter Disk Cabinet Offer you are making for distribution through dealers.

Name _____

Address _____



The Key to Cleaner Milk

The work of producing clean milk is greatly simplified when the dairy barn floor is concrete. Better still, a concrete floor in your dairy barn saves labor, lowering your producing cost.

Modernize Your Barn Now!

You can build a concrete floor yourself. Once laid, it is permanent, odor-and-vermin proof, and easily kept clean.

The coupon will bring complete information.

Portland Cement Association
1315 Walnut St.
PHILADELPHIA

Please send me a free copy of your booklet on "How to Build Concrete Floors in Dairy Barns."

Name.....
St. Address (or R. F. D.).....
City..... State.....



MILLIONS LOST

Dairymen in the United States lose millions of dollars annually because of poorly cooled milk and cream, says the U. S. Department of Agriculture. These losses occur because inferior milk or cream is returned by dealers to the farmers, and because low grade products bring low prices.

Our Milcare Automatic Stirrer is the article that the dairy industry has been looking for. It is very reasonable in price, strictly sanitary, will cool, aerate, and keep milk and cream sweet.

Each Milcare is Guaranteed
Price \$9.50 F. O. B.

AGENTS WANTED

MILCARE CORPORATION
FERGUS FALLS, MINN.

Philadelphia Inter-State Dairy Council

The various departments are at your service and will assist you in planning
EDUCATIONAL ENTERTAINMENT

for your Community, Local or Club Meetings. Lecturers, Speakers, Motion Pictures, Lantern Slides, Etc.

C. I. COHEE; Sec'y, 219 North Broad Street, PHILADELPHIA

Milk From Stones and Bones

Are limestone and bone meal useful cow feeds? "Ordinarily not," says Director E. B. Forbes of the Institute of Animal Nutrition of the Pennsylvania State College.

At the same time, states Doctor Forbes, about a third of the commercial mixed cow feeds in the eastern states contain bone meal and about two-thirds contain limestone, as regular components.

In an address before a recent meeting of the American Society of Animal Production, Doctor Forbes analyzed the status of bone meal and limestone as animal feed in the light of the results of his own extensive experiments.

Doctor Forbes has shown that cows usually give off more mineral substance early in the period of lactation than they can replace by assimilation, and so are in negative mineral balance, but that they repay this overdraft at the mineral bank (the skeleton) later in the period of lactation when the milk flow has diminished, and afterward when the cow is dry. In this way the mineral account for the year is balanced, and the cow begins the next year even with the game.

Under rare and abnormal local conditions as to composition of soil and of forage crops, cows need bone meal to make good the deficiencies of the feeds in calcium and phosphorus but this unusual condition is considered not to warrant the feeding of bone meal to all cows, regardless of demonstrated need; and the feeding of limestone to cows has not been shown to be necessary under any known conditions.

Lettuce

Lettuce is decidedly a cool season crop. Plant it early in the spring as soon as the ground can be worked. Leaf lettuce is a surer spring crop than head lettuce. Prizehead, in spite of its name, is a leaf lettuce and a very good one for the home garden. The leaves show a touch of red. If warm weather comes early the heading varieties will not do well. They may be used for leaf lettuce, however, if they fail to head. The chances of success are good if you start plants under glass. Use May King or Salamander, two early-heading varieties. Big Boston is a good fall-heading kind.

Lettuce thrives best in soils which have a good supply of humus or partially decayed plant material. Even on well manured soils, a good commercial fertilizer not too high in potash should be used at the rate of a pound to every forty square feet. If a good supply of manure is lacking, use twice as much fertilizer. Lettuce which is well fed and well supplied with moisture grows quickly and is crisp and tasty. If checked in growth it becomes bitter.

Lettuce rows are spaced 12 to 15 inches for hand cultivation. Thin before the plants begin to crowd one another. Leaf lettuce may be thinned at first to four-inch spacing. Then every other plant should be used early. Head lettuce needs ten inches, more or less, between plants.

Soil Chemists Aid in Fight Against Erosion

Chemists of the United States Department of Agriculture are assisting in the nation-wide fight against soil erosion by determining just what properties of soils cause them to wash away readily and form gullies. They have estimated that erosion takes from the soil annually twenty times as much of the elements of fertility as is removed by all the crops grown on the land.

Every farmer knows that certain of his soils will run away with heavy rains or from gullies more readily than others. Soil scientists are measuring the amounts of soil carried away by erosion from the fields of the experiment stations which are being established by the Government for study of this menace of erosion, but in the past there have been no laboratory studies which have shown any relations between the readiness of soils to erode and their chemical and physical characteristics.

Such a laboratory study was recently completed in the Bureau of Chemistry and Soils of the Department of Agriculture, and the results have been described by Dr. H. E. Middleton of that bureau in the recently published Technical Bulletin 178-T, entitled "Properties of Soils Which Influence Soil Erosion." The bulletin tells how the determination in the laboratory of certain chemical and physical properties of a number of different soils has made it possible to classify soils as to the ease or the difficulty with which they erode.

"A soil can not easily wash away," says Doctor Middleton, "unless the soil particles are picked up by water and held in suspension. The particles of certain soils can be readily suspended in water; those of certain others can not. Then, again, if the soil readily soaks up a large amount of water before it becomes saturated it is less liable to erosion because it is the water which falls on a soil after it is saturated that runs off and causes the damage. By measuring these properties of soils we can measure roughly their ability to withstand erosion."

As the experimental work of the erosion-prevention field stations of the Department of Agriculture progresses in measuring the susceptibility of various kinds of soils to erosion, the findings of the soil chemists in the department's laboratories at Washington are expected to prove valuable in the movement to conserve America's soil resources.

Copies of the Bulletin, 178-T, can be obtained, as long as there is a supply available for free distribution, by writing to the United States Department of Agriculture, Washington, D. C.

Daylight Saving

Beginning April 27, all programs from Chicago NBC studios will be broadcast on Central Daylight Saving Time. The National Farm and Home Hour, however, will reach farm homes at the same hour as it is reaching them at the present time, between 11.45 and 12.30, Central Standard Time, or 12.45 and 1.30, Daylight Saving Time. It is the desire of the National Broadcasting Company that Farm and Home Hour programs reach its listeners at the most convenient noon hour time, so these broadcasts remain at the same hour, 11.45 to 12.30, Central Standard Time.

Give Chicks Clean Feed

All grain and mash should be fed to the chicks in clean hoppers or troughs. This practice may reduce the spread of coccidiosis, round worms, tape worms, and other troubles which may be picked up by the chicks if their feed is scattered in dirty litter or on contaminated ground.

Guernseys

50 Reg. Guernsey Cows due to freshen in next three months

Tried herd sires, young show and breeding bulls, bull calves, imported cows, A.R. cows, cows, bred and open heifers of the best breeding, accredited and blood tested at reasonable prices. Several hundred head to pick from. Send for sales lists.

Also the best in registered and high-grade Holsteins, Ayrshires, Brown Swiss, Jerseys, Milking Shorthorns, all ages, both sexes and accredited.

Special offering in fancy, high-grade Mission Jersey cows, fresh and Springers, \$125.00 per head delivered in carlots.

Reg. Devon Cows, bulls, heifers, bull and heifer calves, Devon oxen. All breeds of registered sheep priced from \$40.00 to \$50.00 per head. Two carloads of high-grade Guernsey nearby springers, accredited and blood tested.

WRITE YOUR WANTS

LEWIS H. FURGASON
Box 326
WINDHAM, N. Y.

Field Day Program in New Jersey

The Annual Field Day of the New Jersey State College of Agriculture and Experiment Station will be held in New Brunswick on Wednesday, June 11. At that time the work and activities of the institution will be open for inspection by farmers, amateur gardeners, and home-makers.

A general program will be held in the morning, while the afternoon will be given over to demonstrations and discussions of experiments with field crops, vegetables, fruits, flowers, dairy cattle, sheep, hogs, poultry, and soils.

A special program for women will include talks and demonstrations on home management, foods, and child training.

Report of the Field and Test Dept. Inter-State Milk Producers' Association.

The following statistics show the average operations of all the Inter-State Milk Producers' Association field men in connection with testing, weighing and general membership work, for the month of February, 1930:

No. Tests Made.....	7090
No. Plants Investigated....	52
No. Membership Calls.....	165
No. Calls on Members.....	197
No. Herd Samples Tested....	604
No. New Members Signed....	64
No. Cows Signed.....	492
No. Transfers Made.....	12
No. Meetings Attended.....	19
No. Attending Meetings.....	1583

Trees "Electrocuted"

Leakage of electric currents from high-power transmission lines often causes serious injury to trees, according to tree specialists in the United States Department of Agriculture. Another common type of injury to trees and shrubs is scorching or burning as a result of the plants being located where whitewashed or light-colored walls reflect the heat of the sun. Other types of injury to trees are caused by dense shade or too intense sunlight.

MARCH BUTTER PRICES

	Philadelphia	New York	Chicago
1 34 1/2	34	33 1/4	
3 34 1/2	34	33 1/4	
4 35	34 1/2	34	
5 35 1/2	35 1/4	34 1/2	
6 36 1/4	35 1/2	35 1/2	
7 36 1/2	36	35 1/4	
8 36 1/2	36	35	
10 37 1/2	37	37 1/2	
11 38	37 1/4	37 1/2	
12 38	37 1/2	37 1/2	
13 38 1/2	37 1/2	37 1/2	
14 38 1/2	38	38 1/4	
15 39	38 1/4	38 1/4	
17 40	39	38 1/4	
18 40 1/2	39 1/2	40	
19 40 1/2	39 1/2	39 1/2	
20 40 1/2	39 1/2	39	
21 39 1/2	38 1/4	38 1/2	
22 39 1/2	38 1/2	38 1/2	
24 38 1/2	37 1/2	38 1/2	
25 38 1/4	37 1/4	37 1/2	
26 38	37	37 1/2	
27 38 1/2	37 1/2	37 1/2	
29 38 1/2	37 1/2	38 1/4	
31 38 1/2	37 1/2	38	

BABY CHICKS

Order now for April delivery.

Rhode Island Red Chicks, \$15 per 100; Barred Rocks, \$15 per 100; White Leghorn Chicks, \$12 per 100. Good straight stock, guaranteed delivery.

Satterthwaite's Seed Store
16 N. WARREN STREET
TRENTON, N. J.
Phone 8278

PHILADELPHIA
SILOS IN WOOD CONCRETE TILE
Reliable for past 30 years.
BROODER HOUSES
DAIRY BARN EQUIPMENTS
Free catalog. Special prices now.
E. F. SCHLICHTER CO.
10 S. 18th St. Philadelphia, Pa.



TRADE MARK **NICE** REG. U.S.A.

THE NAME TO GO BY—WHEN YOU GO TO BUY PAINT AND VARNISHES

Write for Color Cards and Booklet "Paint Pointers"
EUGENE E. NICE COMPANY, Inc., PHILADELPHIA

LIVESTOCK LOVES LEGUMES LEGUMES LOVE LIME
SWEETEN YOUR SOIL WITH **LIME-MARL**
Legumes, grain, grass, truck—on any crop or soil that needs lime, LIME-MARL will pay you best. Use it for bigger profit at harvest time. It is ideal for agriculture purposes. Write for free booklet and delivered prices.
NATURAL LIME-MARL CO., ROANOKE, VA.
(2 PLANTS ON R. & O. R.R.)

High Grade Dairy Cows

in HIGHTSTOWN, N. J.

We handle all kinds of cattle

Holsteins—Guernseys—Jerseys
A Specialty

All cows tuberculin tested and sold subject to a 60 or 90 day retest and fully guaranteed in every respect.

Free delivery any distance.

B. ZAITZ & SON

202 Mercer Street

Phone 72 Hightstown, N. J.



Let Us Design Your Stationery

Horace F. Temple
Printer

Bell Phone No. 1
WEST CHESTER, PA.

Quietness and Convenience in Philadelphia's Newest Hotel

The Robert Morris

17th and ARCH STREETS
Rooms all outside and with bath. All beds equipped with box springs and Nachman inner hair spring mattresses.

RADIO IN EVERY ROOM

Single rooms.... \$3.00 \$3.50 \$4.00

Double rooms.... 4.50 5.00 6.00

LUNCHEON .60 and 75

DINNER \$1.00, \$1.15, \$1.50

RIBSAM'S REMINDER

Cattle Forage. Sow heavy side oats. Canada field peas, barley, spring vetch, alfalfa and sweet clover. Dust your seed with Semesan for better crops. Try it. Side oats \$1.35 per bu. Ensilage and other varieties of corn. Everything for the variety.

Martin C. Ribsam & Sons, Co.
145 E. Front St.
TRENTON, N. J.

National Farm and Home Hour broadcasts give to the farmer all of the information which is available to the buyer of his products and, for the first time in the history of the world, place him upon an equal footing with the buyer of his products.

the door fasteners form a safety ladder

A convenient, permanent ladder of wide, low, safe rungs directly under the opening—completely safe and convenient. The hoops are adjusted from the ladder so providing long life for the silo and perfect protection for the silage.

Write for discounts for cash and early orders and big free catalog.

UNADILLA SILO CO.
Box 11 Unadilla, N.Y.

UNADILLA SILOS

Clip and Groom Your Cows During Stable Months—It Means **CLEANER** and **BETTER MILK**
Clipped and Groomed Cows are clean and comfortable and keep dirt out of the milk pail. Clipping and Grooming improve the health of your Live Stock. Gillette Portable Electric Clipping and Grooming Machines Operate on the Light Circuit furnished by any Electric Power Co., or on any make of Farm Lighting Plant. PRICE LIST ON REQUEST

GILLETTE CLIPPING MACHINE CO.
129 West 31st St., Dept. 14, New York, N. Y.
45 Years Making Reliable Clipping and Grooming Machines.

Dairy and Poultry Feeds

That Produce Results
Farm Supplies of All Kinds

Ask Us for Prices

Scheideler Bros.

LAWRENCE STA., N. J.

Phone Plainsboro 593

PAPER YOUR HOME

You can paper the average room with high-grade artistic wall paper for as little as 90 cents—by buying direct at lowest wholesale prices. Send for big free catalog. Not the usual small mail order catalog but large book showing scores of artistic designs for ceilings and borders as well as walls. Write today.
PENN WALL PAPER MILLS
Dept. A Philadelphia, Pa.

ALFALFA & CLOVER HAY

First or second cutting Alfalfa, Clover and Timothy Hay. Straight or mixed cars. Personal Service. HENRY K. JARVIS, 121 Roosevelt Ave., Syracuse, N. Y.



Producer for Washington, D. C., Trade Gets Low Bacterial Counts with De Laval

MR. C. C. LYNN, owner of the Ben Lomond & Paradise Dairy Farm at Manassas, Va., is one of the dairymen producing milk for the fastidious Washington, D. C., trade. Bacterial counts kept at their lowest point is only one of the requirements which Mr. Lynn expected of a milker, and after careful investigation he installed the De Laval. He now writes:

"About six years ago I purchased my first De Laval Milker. This outfit consists of three units and has been in constant use on a 35-cow herd. During this time the machine has never failed to operate.

"I am producing milk for the Washington, D. C., market and have had no trouble with high bacteria. I might also say I have had high herd in production of milk in the Prince William Herd Improvement Association.

"The results obtained with the first outfit were so satisfactory that I later installed another in a 60-cow barn on a farm I recently purchased."

Many other dairymen throughout Virginia, Maryland and Pennsylvania use De Laval Milkers with the same success experienced by Mr. Lynn. There is no method of milking which compares with the De Laval in producing cleaner milk, achieving and maintaining maximum production, saving time and labor, and milking day after day, year after year with the same uniformity, regularity and dependability.

THE DE LAVAL SEPARATOR COMPANY
New York, N. Y., 165 Broadway
Chicago, Ill., 600 Jackson Blvd.
San Francisco, Cal., 61 Beale St.

Please send me information on the following De Laval products which I have checked:

- ☐ Magnetic Milker
- ☐ Utility Milker
- ☐ Utility Single Unit
- ☐ Utility Double Unit
- ☐ Alpha Dairy Power Plant
- ☐ Solution Rack
- ☐ Golden Series Separator
- ☐ Utility Series Separator
- ☐ Junior Series Separator
- ☐ Europa Series Separator
- ☐ De Laval Oil

I milk.....cows.

Name.....

P. O.....State.....

Send the
Coupon for
Complete
Information

DE LAVAL PRODUCTS



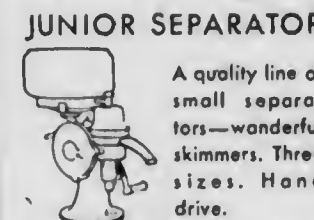
GOLDEN SERIES SEPARATOR

The world's best separator; skims cleaner, runs easier, lasts longer. Seven sizes. Hand, belt or electric drive.



UTILITY SEPARATOR

Just like the "Golden Series" except for several non-essential features. Sells for less. Three sizes; hand, belt or electric drive.



JUNIOR SEPARATOR

A quality line of small separators—wonderful skimmers. Three sizes. Hand drive.



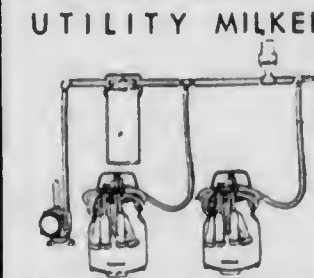
EUROPA SEPARATOR

A line of low priced Europeas, made De Laval Separators. Four sizes. Hand drive.



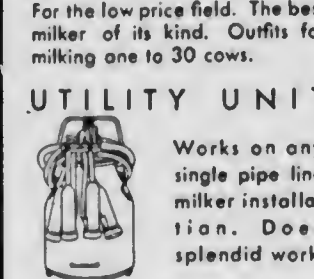
MAGNETIC MILKER

The world's best milker. Pulsations controlled by magnetic force give perfect, uniform milking. Easy to operate, easy to clean. Operated by gas engine or electric motor. Outfits for one to 1000 or more cows.



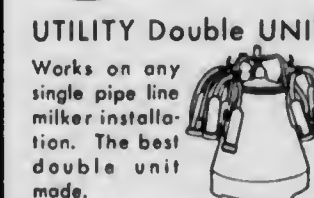
UTILITY MILKER

For the low price field. The best milker of its kind. Outfits for milking one to 30 cows.



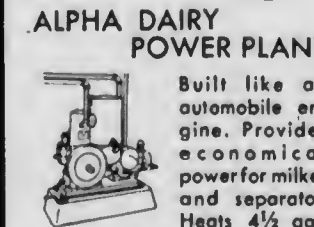
UTILITY UNIT

Works on any single pipe line milker installation. Does splendid work.



UTILITY Double UNIT

Works on any single pipe line milker installation. The best double unit made.



ALPHA DAIRY POWER PLANT

Built like an automobile engine. Provides economical power for milker and separator. Heats 4½ gallons of water for cleaning.



SOLUTION RACK

Keeps milker teat-cups sterile between milkings. Solution used only once so it is always full strength.



DE LAVAL OIL

Makes separators run easier and last longer. Specially made. Two kinds—red label, hand separator oil; green label, milker pulso-pump oil.

**End of
Volume**